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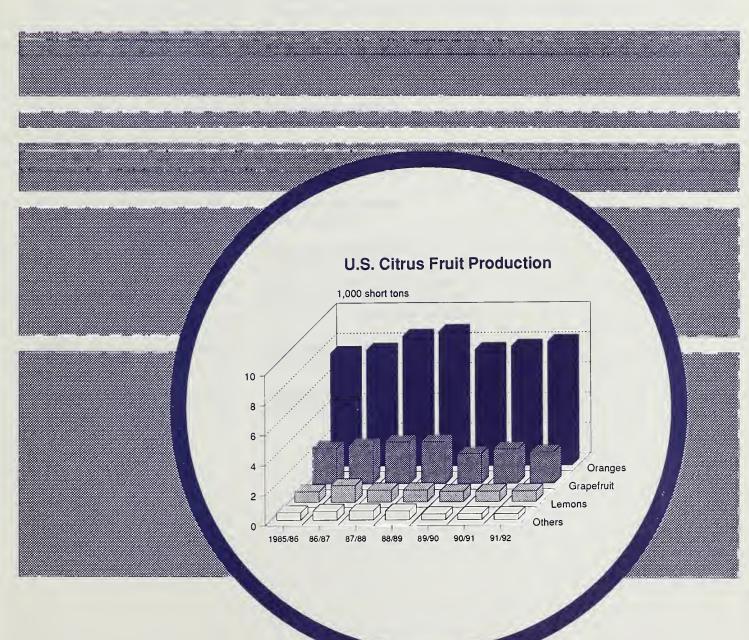
Economic Research Service

TFS-260 November 1991

Fruit and Tree Nuts

Situation and Outlook Report







Contents

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Summary

Average orange prices rose abruptly in June 1991, when most of the lower priced processing oranges had been sold and a short California crop of fresh oranges remained on the market. Fresh-market orange prices (equivalent on-tree returns to growers) rose 60 percent from May to June, stayed high all summer, but fell 30 percent in October when the first 1991/92-crop Florida oranges were marketed.

The December 1990 California freeze reduced the fresh orange supply and raised fresh orange prices during the 1990/91 season, while the processing-orange crop in Florida rebounded from the December 1989 freeze, causing downward pressure on juice prices. Grower prices for fresh apples, lemons, and pears were also higher, boosting the grower index for fresh fruit.

U.S. Citrus Crop Forecast Up 2 Percent in 1991/92

USDA's first forecasts of U.S. citrus crops for 1991/92 point toward a 2-percent larger total crop than a year earlier. U.S. production of oranges, Temples, tangerines, and limes is expected to increase, while production of grapefruit, tangelos, and lemons is expected to decrease.

U.S. orange production for 1991/92 is forecast up 4 percent from 1990/91. California, the major producer of fresh oranges, is expected to nearly double its output, but Florida orange production is expected to decline 10 percent in 1991/92.

Florida orange juice production will likely decline 5-10 percent, and total U.S. orange juice production less than 5 percent, from the 1990/91 season.

Expectations of a smaller crop of Florida processing oranges have already raised the wholesale price of frozen concentrated orange juice (FCOJ), and grower prices are expected to be higher than in 1990/91. If higher prices attract 10-15 percent more imports, domestic availability of FCOJ in 1991/92 would be about the same as in 1990/91.

Fresh orange prices are likely to remain strong in 1991/92, despite the partial recovery of production in California. USDA's forecast of California's navel orange crop is nearly 85 percent larger than last year, but still only 65 percent of the prefreeze level in 1989/90. Valencia orange production in California is expected to be more than double last season's, which would be almost 90 percent of 1989/90 production.

Florida grapefruit production, normally over 80 percent of U.S. production, is expected to be down 6 percent. Grapefruit production in California's desert valleys is expected to be the same as in the prior two seasons. The forecast for California's "other regions" will be available in April.

Grapefruit prices are likely to be higher in the coming months, with the prospect of less production and strong export demand tightening supplies. However, the expected price rise may be moderated by relatively low utilization for processing, reflecting weak demand for grapefruit juice.

Prices for Noncitrus Crops Higher for Second Year

Prices for most noncitrus crops are higher, reflecting shorter crops, or, as with apples, strong demand. The final forecast for the 1991 U.S. apple crop was 4 percent larger than the 1990 crop. Since the 1991 season began in July, grower prices averaged 20 percent higher than the same period last year. Grape production was up 2 percent from the September 1 forecast, but was still 5 percent less than in 1990.

The pear crop was down 8 percent from 1990, and, in September and October 1991, grower prices for fresh pears averaged nearly 25 percent higher than the same period last year. Peach production in 1991 was up 15 percent from last year, and the season-average grower price for fresh peaches was down less than 5 percent from 1990.

Reduced production in Europe and continued strong demand in Asia are expected to boost key U.S. fresh noncitrus exports in 1991/92. Fresh apple and pear exports as a proportion of U.S. fresh-market utilization have risen substantially in recent years.

Total 1991/92 Tree Nut Production Down

Record carryin stocks and reduced production of some U.S. tree nut crops have resulted in a 1991/92 total supply that is moderately lower than last season's record. U.S. almond and pistachio supplies are smaller, but hazelnut, pecan, and walnut supplies are larger, or nearly the same, as last season. Abundant U.S. tree nut supplies should maintain exports and domestic consumption at near-record levels.

World almond and hazelnut supplies are much smaller but world pistachio and walnut supplies are very large. U.S. export marketing opportunities remain excellent for tree nuts.

Grower Price Index for All Fruit Sets Record in June

Higher prices for fresh oranges, apples, pears, and lemons raised fresh fruit price indexes. Ample orange juice supplies lowered 1991 producer price indexes for processed fruit.

The index of prices received by growers for all fruit was record high in June 1991 and remained nearly double the year-earlier level through September. As the fall harvest of several crops progressed, the index fell 30 percent in October, but was still 50 percent above October 1990.

This year the margin between fresh and processing fruit prices widened, as the December 1990 California freeze reduced the fresh orange supply and raised fresh orange prices, while the 1990/91 processing orange crop in Florida rebounded from the December 1989 freeze, causing downward pressure on juice prices. During June-September 1990, the index for fresh market fruit was 4-6 percent above the all fruit index, but for June-September 1991 it was 12-14 percent higher.

The average price of all oranges rose abruptly in June as most of the Florida crop, mainly lower priced processing oranges, had been sold, with a short California crop of fresh oranges remaining on the market. Fresh market orange prices (equivalent on-tree returns to growers) averaged \$28 per box in June-September 1991, compared with \$8.90 for the same period in 1990. The price fell to \$14.68 in October when the first of the 1991/92 Florida orange crop was marketed.

Grower prices for fresh apples, lemons, and pears were also higher than last season, boosting the grower price index for fresh fruit. During June-September 1991, apple prices averaged 25-30 percent higher than a year earlier. However, fresh grapefruit prices were down about 25 percent and peach prices averaged nearly 10 percent below the same 4-month period of 1990.

Figure 1
U.S. Grower Prices for Oranges

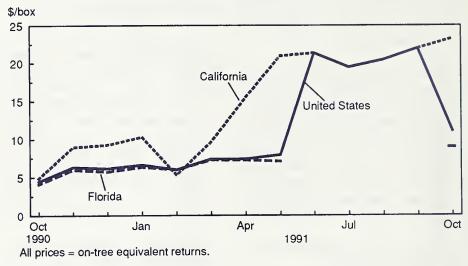


Table 1--U.S. monthly grower price indexes, 1989-91

Month		All fruit ind	ex	Fre	sh fruit ind	ex
	1989	1990	1991	1989	1990	1991
			1977=1	00		
January February March April May June July August September October November December	186 186 177 184 202 200 188 193 208 196 200 182	170 174 185 195 208 206 196 182 198 181 205 200	208 197 213 216 235 398 364 365 389 271	195 195 184 193 215 214 200 205 223 207 211 190	175 181 194 207 221 219 206 190 210 189 217 211	221 207 228 231 253 449 410 412 440 296
Average	192	192	286	203	202	315

Producer price indexes that distinguish between citrus and noncitrus prices indicate that higher citrus prices were largely responsible for elevating fresh fruit price indexes. Although the June 1991 producer price index for all fresh fruit was 20 percent higher than a year earlier, the index was up 50 percent for fresh citrus, but up less than 10 percent for noncitrus.

In contrast to the fresh market, the larger crop of Florida oranges available for juice brought the producer price index for frozen fruit juice down nearly 15 percent from October to November 1990, following the announcement of the Florida crop forecast. The index continued to drop, and between March and July 1991 averaged about 25 percent less than a year earlier. Processors of canned and dried fruits, which are mostly noncitrus, reported slightly higher prices during 1991. For example, the producer price index was up 5 percent for canned fruit and 7 percent for dried fruit in July 1991 compared to July 1990.

Retail prices of fresh and processed fruit reflected changes at the grower level, but did not move as sharply as grower and producer price indexes. The June 1991 consumer price index (CPI) for fresh fruit was 18 percent above June 1990. But by August, the fresh fruit CPI was just 10 percent above the previous year. The CPI for all processed fruit was down 6 percent from last year during June-August, due mostly to a 10-percent drop in frozen fruit and juice prices.

Figure 2
U.S. Producer Price Index for Fresh Fruit

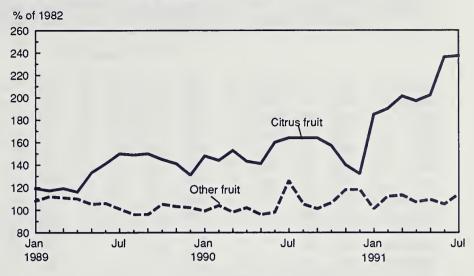


Figure 3
U.S. Producer Price Index for Processed Fruit

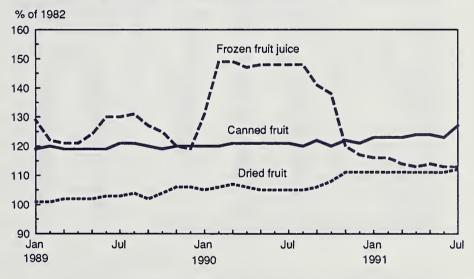


Table 2--U.S. monthly consumer price indexes for fruit, 1989-91

Month	F	resh fru	it	Pro	cessed	fruit	Frozen	fruit and	d juice	Canne	d and dr	ied fruit
	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982-8	4=100					
January	145	171	190	126	125	135	128	126	137	117	121	124
February	150	170	191	126	132	133	127	134	135	118	121	124
March	150	171	196	125	137	132	126	140	134	118	121	124
April	152	176	202	125	138	132	126	142	134	119	121	125
May	158	175	205	125	139	132	126	144	133	119	121	125
June	152	173	204	126	140	131	127	145	132	120	121	126
July	151	177	199	126	140	131	127	145	131	120	122	127
August	151	170	187	127	140	131	128	144	131	121	123	127
September	155	169	194	128	140	131	129	144	132	121	123	128
October	157	163		127	140		128	144		121	123	
November	153	165		126	137		128	141		120	122	
December	155	171		125	135		126	137		120	123	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 3--U.S. monthly producer price indexes for fresh fruit, 1989-91

	Fres	h citrus fruit		Otl	ner fresh fru	Jit		Fresh fruit	
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991
					1982=100				
					1902=100				
January	119	148	185	108	99	108	111	112	127
February	117	144	190	112	104	112	113	114	132
March	119	153	201	111	98	113	114	113	135
April	116	143	197	110	102	107	112	113	130
May	133	141	202	105	96	109	113	108	132
June	141	160	236	106	98	105	115	115	138
July	150	164	237	101	126	114	114	136	145
August	149	164		96	105		110	121	
September	150	164		96	101		110	118	
October	145	157		105	106		121	120	
November	141	140		103	118		113	124	
December	131	132		102	118		110	122	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 4--U.S. monthly producer price indexes for processed fruit, 1989-91

	Canne	d fruit and ju	iice	Froz	en fruit and	juice		Dried fruit	
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991
				-	- 1982=100				
January	123	124	126	127	129	115	101	105	111
February	122	127	127	122	147	115	101	106	111
March	122	128	127	121	148	113	102	107	111
April	122	128	127	121	146	113	102	106	111
May	122	127	127	124	146	113	102	105	111
June	123	128	127	128	146	113	103	105	111
July	123	127	129	129	147	113	103	105	112
August	123	128		129	146		104	105	
September	123	129		125	140		102	106	
October	123	128		124	137		104	108	
November	123	125		119	119		106	111	
December	123	125		118	116		106	111	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 5--U.S. monthly producer price indexes for processed fruit, 1989-91

	C	anned fru	it	Frozen fruit			Canned fruit juice			Frozen fruit juice		
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982=	100					
January February March April May June July August September October November December	119 120 119 119 119 119 121 121 120 119 120	120 120 121 121 121 121 121 120 122 120 122 121	123 123 123 124 124 123 127	116 117 117 117 117 117 118 118 118 114 113 108 108	118 134 136 133 133 134 134 134 128 125 109 106	106 106 105 106 105 105 105	127 125 125 125 126 127 127 127 127 127 128 128	129 133 134 134 133 134 135 136 135 135 130	130 132 131 131 132 132 132	129 122 121 121 124 130 130 131 127 125 120 119	131 149 149 147 148 148 148 148 141 138 120 117	116 116 114 113 114 113

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 6--U.S. monthly producer price indexes for fresh citrus fruit, 1989-91

	Gra	apefruit			Lemons		Nave	l oranges		Valenc	ia orange	S
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982=	100					
January	155	202	167	117	116	157	80	81	168	107	157	142
February	140	188	171	114	119	154	77	81	179	112	152	141
March	134	209	175	120	126	145	82	81	204	112	163	135
April	135	198	153	120	136	140	77	74	207	110	153	129
May	156	194	158	123	149	162	92	80		124	141	135
June		251	236	146	149	175	105	100				185
July	213	270	244	149	159	184						
August				135	168	188						
September				149	165							
October	183	251		140	156						132	
November	164	181		129	115					124	122	
December	183	167		130	113		80	91		124	120	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 7--U.S. monthly producer price indexes for frozen fruit juice, 1989-91

	Or	ange jui	ce	Gra	pefruit j	uice	l	emona	de	Gr	ape juic	е
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982= ⁻	100					
						1902=	100					
January	137	138	114	146	151	140	127	136	147	101	103	114
February	128	162	114	140	160	138	127	140	147	105	108	114
March	127	163	112	140	159	133	124	140	147	105	108	112
April	125	160	112	144	160	130		140	147	101	105	114
May	132	160	110	141	160	124	117	135	126	105	109	133
June	139	160	111	141	161	125	117	137	144	105	109	123
July	141	160	111	138	161	125	117	137	144	101	105	123
August	140	161	108	146	156	125	117	137	144	105	109	119
September	137	151		140	160		117	137		105	109	
October	134	147		140	158		131	142		101	102	
November	123	121		146	147		131	142		105	111	
December	122	118		147	143		131	142		105	111	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 8--U.S. monthly producer price indexes for fresh noncitrus fruit, 1989-91

	Delic	ious app	oles	McIr	itosh ap	ples		Peache	s		Pears	
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982=	100					
January	95	90	126	96	113	97					107	107
February	140	100	122	97	123	116					111	110
March		98	120	89	119	108						
April	111	99	120	118	123	115						
May	99	97	140	118	117	119						
June	111	98	143	89	120							
July					••		82	185	109			
August							127	173	73	103	147	109
September							150	196		94	84	
October	97	97		113	115					93	106	
November	90	122		102	104					118	109	
December	86	133		108	97					97	103	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Table 9--U.S. monthly producer price indexes for selected fresh and dried fruit, 1989-91

	Fre	sh grap	es	Fresh	strawbe	rries	Dri	ed prune	es	Dri	ed raisir	ıs
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
						1982=	100					
January				101	101	101	111	120	127	90	91	97
February				78	114	123	111	120	128	90	94	97
March				82	101	140	113	120	128	90		97
April				39	101	109	115	120	128	**	94	
May	••	••	••	56	63	101	114	120	128	90	92	
June				74	101	60	114	120	128	91		
July		157	138	67	101	67	114	120		91	91	
August	100	112	112	80	90	67	115	120			91	
September	98	103		78	95		115	120			94	
October		110		145	112		116	124		91	94	
November				134	179		120	127		94	97	
December	••			••	••		120	127		93	97	

Source: Bureau of Labor Statistics, U.S. Department of Labor.

U.S. Citrus Crop Forecast Up 2 Percent in 1991/92

A much larger California orange crop forecast will more than offset a smaller Florida crop.

Although wide differences exist by States, USDA's first forecast of the total 1991/92 U.S. citrus crop points towards a 2-percent larger crop than a vear earlier. U.S. production of oranges, Temples, tangerines, and limes is expected to increase, while production of grapefruit, tangelos, and lemons is expected to decrease. Forecasts of California citrus production surpass last year's freezereduced crop by 985,000 short tons. In contrast, Florida's citrus production forecast is down 766,000 short tons from 1990/91.

Although Florida citrus trees developed lush foliage this summer, the mild winter of 1990/91 did not provide the temperature change needed for normal citrus bloom, and the fruit count per tree was down from the 1990 record. Plentiful rainfall and mild temperatures contributed to the development of larger fruit this season.

Larger Supply of Fresh Market Oranges, but Fewer Processing Oranges Expected

U.S. orange production for 1991/92 is forecast up 4 percent from 1990/91, but situations will vary in the fresh and

processing markets. California, the major producer of fresh oranges, is expected to nearly double its output, but the crop is still only 74 percent of the record prefreeze production in 1989/90. In contrast, orange production in Florida will decline sharply. Forecasts of a larger crop in California and a 22-percent increase in the Arizona orange crop more than offset the expected 10-percent decline in Florida.

Florida Valencia trees carried a heavy crop in the 1990/91 season. After a heavy crop, the trees typically recuperate by growing more foliage and fewer oranges the following season. The Valencia crop is expected to be down 12-13 percent from 1990/91, while production of early and midseason varieties is expected to decline 8-9 percent.

U.S. production of Temples, tangerines, and tangelos is expected to total 440,000 short tons, 11 percent more than in 1990/91. In Florida, indicated production is up for tangerines (35 percent) and Temples (3-4 percent), while the tangelo crop is down about 2 percent. Tangerine production in California and Arizona will likely

increase, raising total U.S. tangerine production 26 percent from the last two seasons. California lemon production is forecast down 9 percent from 1990/91. A 12-percent increase in Arizona won't compensate, and U.S. lemon production will probably be down 5 percent. Florida lime production is expected to be up 10 percent.

Smaller Grapefruit Crop Likely in 1991/92

U.S. grapefruit production will probably decline in 1991/92. Florida grapefruit production, normally over 80 percent of U.S. production, is expected to be down 6 percent. The forecast for grapefruit from California's "other areas" will not be available until April, but production in California's desert valleys is expected to be the same as in the prior two seasons.

The December 1989 freeze caused enough tree damage to virtually eliminate the 1990/91 citrus crops in Texas. While the Texas citrus industry is recovering, production will be minimal in 1991/92. Oranges and grapefruit crops are expected to amount to 7 percent of 1989/90 production, and only 3-5 percent of prefreeze levels.

Table 10--U.S. citrus fruit production, 1989/90-1991/92 1/

		Utilized			Utilized	
Crop and State			Indicated			Indicated
	1989/90	1990/91	1991/92	1989/90	1990/91	1991/92
		1,000 boxes 2/		1,	,000 short tons	3
All oranges Arizona California Florida Texas	184,415 1,610 71,400 110,200 1,205	180,050 1,750 26,800 151,500 3/	191,195 2,100 53,000 136,000 95	7,745 59 2,677 4,958 51	7,887 65 1,005 6,817 3/	8,191 79 1,988 6,120 4
All grapefruit Arizona California Florida Texas	49,300 2,200 9,400 35,700 2,000	55,500 2,400 8,000 45,100 3/	44,915 2,300 4/ 42,500 115	1,978 70 310 1,518 80	2,255 77 262 1,916 3/	4/ 74 4/ 1,807 5
All Iemons Arizona California	18,600 2,800 15,800	19,000 4,100 14,900	18,100 4,600 13,500	706 106 600	722 156 566	688 175 513
Limes: Florida	1,650	1,450	1,600	72	64	70
Tangelos: Florida	2,950	2,650	2,600	132	119	117
All tangerines Arizona California Florida	3,950 600 1,650 1,700	3,850 600 1,300 1,950	4,800 700 1,500 2,600	164 22 62 80	164 23 49 92	206 26 56 124
Temples: Florida	1,400	2,500	2,600	63	113	117
U.S. total citrus 5/	262,265	265,000	265,810	10,860	11,324	9,389

1/ The crop year begins with bloom of the first year shown and ends with harvest. 2/ Net pounds per box: oranges-California and Arizona-75, Florida-90, Texas-85; grapefruit-California desert and Arizona-64, California other areas-67, Florida-85, Texas-80; lemons-76; limes-88; tangerines-California and Arizona-75, Florida-95; tangelos and Temples-90. 3/ Due to the severe freeze of December 1989, Texas had no commercial production for the 1990/91 season. 4/ The first forecast for California grapefruit "other areas" will be availabe as of April 1, 1992. 5/ California grapefruit production in 1989/90 used to calculate total for 1991/92.

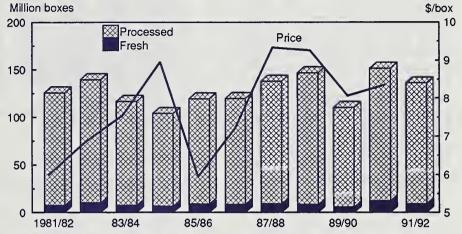
Florida Orange Crop Smaller Than Expected, Juice Price Will Rise

The first forecast for orange production in Florida was far below most expectations, causing orange juice futures to rise sharply.

Florida normally accounts for about 90 percent of U.S. orange juice production, and with Brazil, is a dominant player affecting orange juice prices in the world market. About 95 percent of Florida oranges is used for processing, with over 70 percent for frozen concentrate (FCOJ) and 20 percent for direct production of chilled juice. The Florida orange juice pack will decline less than the forecast decline of orange production because the juice yield is expected to rise to 1.5 gallons (45 degree Brix) per box, 3 percent higher than last year.

In addition, more temples and tangerines will be available for juice in Florida, and California and Arizona will likely increase juice production this year. The Florida Department of Citrus estimates that Florida orange juice

Figure 4
Florida Oranges: Production, Use, and Price



All price = season-average packinghouse-door returns. Year beginning October.

Table 11--Estimated utilization of round oranges, Florida, 1985/86-1991/92 1/

ltom	1985/86	1006/07	1987/88	1988/89	1000/00	1,000/01	Forecast
Item	1903/00	1986/87	1907/00	1900/09	1989/90	1990/91	1991/92
			Million b	ooxes			
Fresh	8.6	8.5	8.9	7.7	5.2	11.4	9.5
Frozen concentrate	91.9	90.5	103.9	107.4	70.1	100.4	87.7
Chilled juice	17.0	19.2	23.6	29.5	33.4	38.1	37.0
Canned juice	1.3	0.9	0.8	1.1	0.6	0.6	0.6
Blends	0.1	0.1	0.1	2/	2/	2/	2/
Non-certified	0.3	0.5	0.7	0.9	0.8	1.0	1.2
Total	119.2	119.7	138.0	146.6	110.2	151.5	136.0

^{1/} The total used in processed products does not agree exactly with the utilization reported by the Florida Citrus Processors Association because their orange utilization report includes some specialty fruit.

2/ Less than 50,000 boxes.

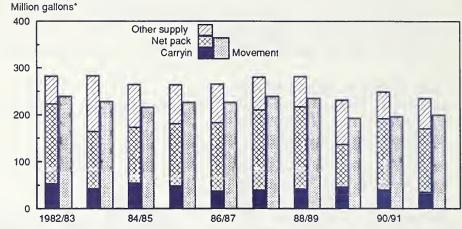
production will decline 5-10 percent, but total U.S. production less than 5 percent from the 1990/91 season.

The 1990/91 season will end with relatively low stocks of orange juice, although Florida orange production was up 38 percent from the freeze-reduced 1989/90 crop. On October 12, 1991, Florida processors reported a 13-percent increase in the FCOJ supply from October 13, 1990, but, with strong demand and increased movement, stocks were down 2 percent and remained 12-15 percent below those at the same time in the 3 previous years.

Orange juice prices reflected the tighter supply situation. Wholesale prices of FCOJ rose during 1990/91 as juice production failed to meet expectations. The futures price for FCOJ was about \$1.00 per pound solids in December 1990, \$1.15-\$1.20 during mid-March to mid-September 1991, and had risen to \$1.32 (for March 1992 delivery) in early October. A week after USDA's relatively small production forecast was released, the futures price was up 20 percent to \$1.59 per pound solids. By early November, the price was about \$1.65.

Expectations of a smaller crop of Florida processing oranges have already raised the wholesale price of FCOJ, and grower prices are expected to be higher than in 1990/91, when the season average price (equivalent packinghouse-door returns) of Florida processing oranges was \$8.14 per box, about 3 percent higher than in 1989/90. If higher prices attract 10-15 percent more imports, as expected by the Florida Department of Citrus, domestic availability of FCOJ in 1991/92 would be about the same as in 1990/91.

Figure 5
Florida Supply and Utilization of Frozen
Concentrated Orange Juice



^{* 42} degrees Brix. Other supply includes imports. Year beginning December.

Table 12--U.S. orange juice supply, 1989/90-1991/92

ltem		Esti	mate
	1989/90	1990/91	1991/92
		Million SSE gallons	s 1/
Florida production	542.9	841.7	779.3
Other U.S. production 2/	109.5	47.2	72.7
U.S. production	652.4	888.9	852.0
U.S. imports	492.1	379.8	428.9
U.S. exports	90.0	100.0	110.3
Net imports	402.1	279.8	318.6
Domestic availablity	1,054.5	1,168.7	1,170.3

^{1/} SSE: single strength equivalent.

^{2/} Estimated processed utilization for Texas, California, and Arizona multiplied by estimated yield.

Imports From Brazil Are Expected To Rise

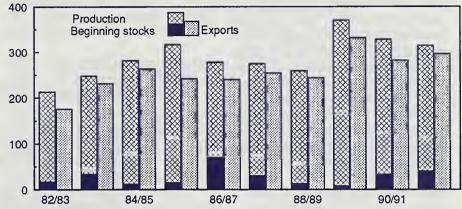
Brazil produces and exports more orange juice than any other country, and a large proportion comes to the United States. Brazil has demonstrated an ability to increase its exports to the United States in years when domestic production was below normal. In 1988/89, the United States imported 362 million gallons of orange juice (single strength equivalent) and nearly 85 percent was from Brazil. Because of the freeze-damaged Florida crop in 1989/90, U.S. orange juice imports rose 36 percent the next year, and over 85 percent was from Brazil. Although 1990/91 U.S. imports were down nearly 25 percent, according to the U.S. Bureau of the Census, Brazil was again the major supplier.

The FCOJ marketing year in Brazil begins in July and ends the following June, with peak marketings to the United States usually from September to November. Thus, supplies of FCOJ from Brazil are typically available towards the end of the U.S. season. Brazil's 1991/92 orange juice production is likely to be down 5-10 percent from 1990/91, and nearly 25 percent below 1989/90. Much of the 1991/92 crop currently being processed in Brazil reportedly has been committed to the European market. However, in the past, higher U.S. prices have diverted Brazilian juice from other markets. Reliable forecasts of Brazil's 1992/93 crop won't be available for several months.

Figure 6

Brazilian Supply and Utilization of Frozen Concentrated Orange Juice

Million gallons*



^{* 42} degrees Brix. Year beginning July.

Table 13--Orange juice production in Brazil and Florida

Season 1/	Brazil	Florida	Total
		Million SSE gallons 2)/
1984/85	1,091.7	567.1	1,658.8
1985/86	1,218.6	639.4	1,858.0
1986/87	839.7	708.4	1,548.1
1987/88	988.7	828.4	1,817.1
1988/89	992.8	888.0	1,880.8
1989/90	1,462.1	542.9	2,005.0
1990/91	1,190.7	841.7	2,032.4
1991/92 3/	1,107.1	779.3	1,886.4

^{1/} Marketing season begins July 1 of the first year shown for Brazil and December 1 for Florida. 2/ SSE: single strength equivalent.

^{3/} Estimate.

Fresh Orange Prices Move Up Sharply in 1990/91

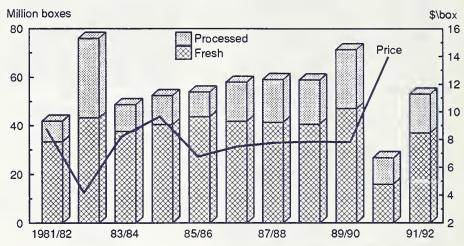
Fresh orange prices are likely to remain strong in 1991/92, despite the partial recovery of production in California.

Most California oranges are targeted to the fresh market and California accounts for almost 80 percent of fresh utilization of U.S.-produced oranges. The quantity of oranges for fresh use was down 40 percent in 1990/91 due to the December 1990 freeze in California. Freezing temperatures reduced the 1990/91 navel and Valencia orange crops by 64 and 59 percent, respectively, from 1989/90.

USDA The first forecast California's 1991/92 navel orange crop is 84 percent larger than last year, but still only 65 percent of the prefreeze (1989/90) level. Valencia orange production in California is expected to be more than double last season's 11 million boxes, and to be almost 90 percent of 1989/90 production. California and Arizona growers expect fresh shipments (domestic and export) to be 48 million cartons in 1991/92, still substantially less than the 65 million shipped in 1989/90, and 13 percent less than the 1986/87-1989/90 average.

Figure 7

California Oranges: Production, Use, and Price



All price = season-average packinghouse-door returns. Year beginning November.

Table 14--U.S. orange production, 1989/90-1991/92 1/

		Utilized			Utilized	
Variety and State			Indicated			Indicated
	1989/90	1990/91	1991/92	1989/90	1990/91	1991/92
		· 1,000 boxes 2/	•••••		1,000 short tons	·
Early, midseason,				4.700	4.550	4 717
and navels 3/	200	550	700	4,783	4,550	4,717
Arizona	390	550	700	14	20	26
California	44,300	15,800	29,000	1,661	593	1,088
Florida	68,100	87,500	80,000	3,064	3,937	3,600
Texas	1,050	4/	60	44	4/	3
Valencias:				2,962	3,337	3,474
Arizona	1,220	1,200	1,400	45	45	53
California	27,100	11,000	24,000	1.016	412	900
Florida	42,100	64,000	56,000	1,894	2,880	2,520
Texas	155	4/	35	7	4/	1

^{1/} The crop year begins with bloom of the first year shown and ends with harvest. 2/ Net pounds per box: orange-California and Arizona-75; Florida-90, and Texas-85. 3/ Navel and miscellaneous varieties in California and Arizona. Early and midseason varieties in Florida and Texas, including small quantities of tangerines in Texas. 4/ Due to the severe freeze of December 1989, Texas had no commercial production for the 1990/91 season.

Short Supply of Fresh Oranges Elevated Prices

Increased imports, reduced exports, and increased fresh shipments of oranges from Florida during the 1990/91 season helped fill the gap created by the freeze in California. However, the short supply greatly raised prices from the year before.

F.o.b. prices for fresh oranges from California and Arizona shipping points have been relatively high since the December 1990 freeze. By December 28, 1990, the f.o.b. price for oranges was \$20.00 per box (113s), compared to \$6.50 the year before. F.o.b. orange prices stayed above \$15 for the following 8 months, rose to about \$22 per box by the end of August, and stayed there through mid-October.

The season-average price for fresh market oranges in 1990/91 was 67

percent higher than in 1989/90, \$17.21 per box (equivalent packinghouse-door returns) compared with \$10.32. The 1990/91 season-average price was 73 percent higher than the 1988/89 average price. Fresh orange prices declined about 10 percent in Florida between the 1989/90 and 1990/91 seasons, but rose 125 percent in California and over 100 percent in Arizona.

More Fresh Market Oranges From Florida and Mexico in 1991/92

Florida sold twice as many boxes of fresh oranges in the 1990/91 season (about 8 percent of the total crop) than in 1989/90. The increase in fresh sales was mostly in response to sharply reduced supplies from California. In the previous 2 seasons, only 5-6 percent of the Florida crop was sold fresh. For the 1991/92 season, more Florida growers are reportedly using cultural practices to target fruit for the fresh

market, and reports from the industry indicate additional packinghouse capacity will be available this season. The Florida Department of Citrus estimates that 7 percent of production will be utilized fresh in 1991/92.

The shortfall in California orange production in 1990/91 greatly reduced the supply of high quality fresh fruit required for export and increased fresh orange imports. Exports of fresh oranges, including Temples, from November 1990 to August 1991 were down 50 percent from a year earlier, to 229,711 short tons. Imports of fresh oranges from November 1990 to July 1991 were well ahead of last season: 66,326 short tons compared with 12,088. About half of the increased volume was from Mexico, with lesser amounts from Spain and Morocco. Fresh orange imports amounted to about 5 percent of 1990/91 fresh utilization.

Table 15--Oranges; Monthly equivalent on-tree prices received by growers, 1989-91

	F	resh orange	s	Proc	essing oran	ges		All orange	s
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991
				Dol	lars per box				
January	6.91	8.57	18.56	6.45	5.59	5.40	6.51	5.92	6.35
February	6.18	8.33	15.21	6.50	5.20	5.23	6.45	5.82	6.81
March	6.57	7.72	13.72	6.09	5.31	6.71	6.26	6.01	7.48
April	6.88	7.33	14.26	7.39	6.16	6.94	7.28	6.48	7.66
May	8.71	9.60	17.52	8.33	5.83	6.67	8.39	7.01	8.34
June	9.90	9.55	28.03	8.17	2.55	-0.10	8.51	6.78	16.76
July	10.36	9.33	26.89	2.54	2.16	-0.10	7.27	5.98	16.09
August	9.76	8.16	28.19	2.12	0.96	-0.10	6.52	4.62	20.81
September	9.96	8.56	28.89	1.70	0.76	-0.10	6.54	4.71	21.97
October	9.55	7.16	14.68	1.56	4.53	2.95	6.29	5.31	11.09
November	9.56	10.40		4.74	5.60		7.34	6.44	
December	8.38	10.84		5.70	5.35		6.34	6.31	

Grapefruit Output To Remain Below Prefreeze Level

Smaller grapefruit crop is expected to strengthen prices in 1991/92.

The 1991/92 U.S. grapefruit crop is forecast to dip about 5 percent from 1990/91. Florida grapefruit production is expected to be down 6 percent. Although 1990/91 grapefruit production was up 14 percent from the 1989/90 crop that was reduced by freezes in Florida and Texas, it was only 80 percent of the previous 2 years' crops.

California grapefruit production in 1990/91 fell 15 percent from the prior season, because of cold weather in December 1990. Production of summer grapefruit in California's "other areas" was down nearly 25 percent.

Grapefruit production in California's desert valley areas is expected to be the same as in the prior two seasons. The forecast for grapefruit production in California's "other areas" will not be available until April 1992, but the industry anticipates a good recovery.

Bigger Share of Grapefruit Crop Utilized Fresh

In 1990/91, more than half of U.S. grapefruit was utilized fresh, for the first time since 1982/83. The Florida Department of Citrus estimated that total utilization was up 26 percent from

the freeze-reduced 1989/90 season. season. Fresh utilization of grapefruit increased 80 percent, with 10 percent fewer boxes processed for frozen concentrated grapefruit juice (FCGJ). Processing accounted for 49 percent of total utilized production, compared with 64 percent in 1989/90. Because of higher juice yields, the total pack of FCGJ reported near the end of the 1990/91 season by the Florida Citrus Processors Association was about the same as in 1989/90. Lower carryin and higher movement left FCGJ stocks down nearly 30 percent.

Table 16--U.S. grapefruit production, 1989/90-1991/92 1/

		Utilized			Utilized		
Variety and State			Indicated			Indicated	
	1989/90	1990/91	1991/92	1989/90	1990/91	1991/92	
		1,000 boxes 2/		1	1,000 short tons		
Florida grapefruit Seedless Pink White Other	35,700 34,300 16,300 18,000 1,400	45,100 43,500 21,800 21,700 1,600	42,500 41,000 21,000 20,000 1,500	1,518 1,458 693 765 60	1,916 1,848 926 922 68	1,807 1,743 893 850 64	
Arizona grapefruit	2,200	2,400	2,300	70	77	74	
California grapefruit Desert Valleys Other areas	9,400 3,500 5,900	8,000 3,500 4,500	3/ 3,500 3/	310 112 198	262 112 150	3/ 112 3/	
Texas grapefruit	2,000	4/	115	80	4/	5	

^{1/} The crop year begins wiht bloom of the first year shown and ends with harvest. 2/ Net pounds per box: grapefruit-California desert and Arizona-64, California other areas-67, Florida-85, Texas-80. 3/ The first forecast for California grapefruit "other area" will be available as of April 1, 1992.

^{4/} Due to the severe freeze of December 1989, Texas had no commercial production in 1990/91.

Fresh Grapefruit Exports Rebound

Fresh grapefruit exports for the 1990/91 marketing year (September/

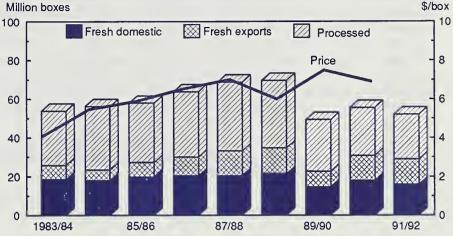
August) were 62 percent above 1989/90, reflecting a sharp recovery from the December 1989 Florida freeze that reduced the quantity of export quality grapefruit in 1989/90. Fresh grapefruit exports reached 464,874 metric tons during 1990/91, compared with 287,330 metric tons a year earlier. Florida expects to export about 2 percent fewer cartons of grapefruit in 1991/92 than in 1990/91.

Grapefruit Prices Expected To Rise in 1991/92

Monthly prices (equivalent on-tree returns to growers) for all grapefruit averaged \$4.41 per box in 1988/89, and climbed to \$5.86 in 1989/90 with freeze-damaged crops in Florida and Texas. Since February 1991, monthly prices have been below a year earlier as the Florida grapefruit supply recovered from the freeze. Grower prices in 1990/91 averaged \$5.26 per box, down 10 percent from 1989/90.

Grapefruit prices are likely to be higher in the coming months with the prospect of less production and as strong export demand for larger size and better quality fruit tightens supplies. However, the expected price rise may be moderated by relatively low utilization for processing, reflecting weak demand for grapefruit juice.

Figure 8
U.S. Grapefruit Production, Use, and Price



All price = season-average packinghouse-door returns. Year beginning September.

Table 17--Estimated utilization of grapefruit, Florida, 1985/86-1991/92

							Forecast
Item	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91	1991/92
			-	- Million boxes -			
Fresh	19.3	20.6	22.6	23.2	12.9	23.2	21.0
Canned	3.0	2.4	2.0	1.6	1.0	0.8	0.6
Frozen concentrate	21.6	24.1	26.7	26.6	19.4	17.4	17.2
Chilled juice	1.2	1.3	1.1	1.7	1.2	2.1	2.2
Blends	1.3	1.0	0.9	0.9	0.7	0.8	0.7
Non-certified	0.3	0.4	0.6	0.8	0.5	0.7	0.8
Total	46.8	49.8	53.9	54.8	35.7	45.1	42.5

Table 18--Grapefruit: Monthly equivalent on-tree prices received by growers, 1989-91

	Fr	esh grapefru	uit	Proc	essing grap	efruit		All grapefru	it
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991
				Do	llars per bo	x			
January	5.39	10.81	9.01	3.13	2.83	1.56	4.40	5.03	5.45
February	5.11	11.91	8.61	3.24	3.07	2.14	4.00	5.00	4.64
March	5.09	13.15	9.58	3.26	3.58	1.88	3.83	7.02	5.67
April	5.75	12.34	9.27	2.75	1.53	0.09	4.24	7.37	5.25
May	6.13	13.83	7.92	2.01	-0.69	-0.54	4.29	7.48	4.18
June	6.12	13.54	9.48	-1.35	-0.91	-1.95	3.32	7.95	5.22
July	8.68	10.02	7.84	-1.44	-0.52	-1.94	5.44	5.63	3.94
August	10.06	7.15	6.55	-1.54	-1.74	-2.00	6.26	3.17	2.86
September	10.03	7.75	4.55	-0.59	-0.83	-1.98	7.61	5.73	1.38
October	7.74	8.44	8.00	1.74	0.76	0.40	6.09	6.52	6.24
November	7.63	8.14		2.02	1.23		5.94	6.03	
December	9.15	7.38		2.23	1.75		6.57	5.17	

Source: National Agricultural Statistics Service, USDA.

Table 19--Lemons: Monthly equivalent on-tree prices received by growers, 1989-91

		Fresh lemor	าร	Pro	ocessing len	nons		All lemons	3
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991
				Dolla	ars per box -	-			
January	9.43	12.83	21.08	-0.96	0.24	0.37	4.33	8.67	6.83
February	10.56	15.42	19.89	-0.96	0.38	-0.05	4.75	9.89	9.41
March	12.28	17.03	17.74	-0.92	0.44	-0.87	5.87	10.24	13.08
April	13.47	17.53	20.55	-0.90	0.44	-0.87	8.03	11.19	16.56
May	16.17	18.13	27.45	-0.88	0.44	-0.87	11.96	12.20	23.06
June	18.77	19.33	29.25	-0.88	0.44	-1.01	14.95	13.24	23.46
July	20.17	20.03	28.95	-0.88	0.52	-1.01	15.57	13.40	21.23
August	21.73	18.05	30.45	-0.72	0.51	-1.01	16.70	11.70	20.51
September	22.76	19.18	31.35	-0.72	0.57	-0.95	17.22	13.53	22.00
October	22.00	18.06	26.33	-0.72	0.57	-0.95	15.11	11.49	19.45
November	15.97	7.68		-0.46	0.23		9.71	4.46	
December	12.43	8.55		-0.04	-0.67		7.17	3.63	

Lemon Prices Expected To Remain Strong in 1991/92

A smaller lemon crop and some recovery in exports are expected to tighten lemon supplies and raise prices.

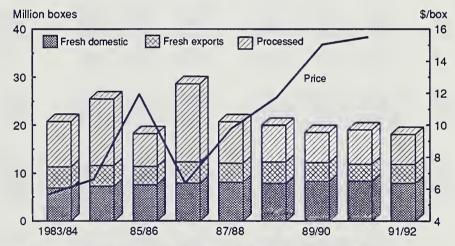
The first USDA forecast of 1991/92 U.S. lemon production is 688,000 short tons, down 5 percent from last year, but only 3 percent less than the 1989/90 crop. In California, lemon production is forecast 9 percent below last season and 15 percent below 1989/90. Lemon trees were damaged by the December 1990 freeze in the Central District of California, where little production is expected for 2 more years. Arizona's lemon production is expected to be up 12 percent in 1991/92.

For the first 7 months of 1991, U.S. lemon exports were down 30 percent from a year earlier. The December 1990 California freeze adversely affected both the size of the California lemon crop and the quality of fruit needed for export markets. U.S. lemon imports more than doubled for the first 7 months of 1991, but still amounted to less than 10 percent of U.S. exports.

Lemon prices received by growers rose each month following the December

freeze in California, and peaked at \$23.46 per box in June 1991, well above the \$13.24 in June 1990. Prices dipped slightly in July and August, but remained above \$20 per box, and climbed to \$22.00 in September. The smaller crop and better quality of lemons, which should expand exports, are expected to signal higher prices than in 1990/91.

Figure 9
U.S. Lemon Production, Use, and Price



All price = season-average packinghouse-door returns. Year beginning August.

Table 20--Citrus fruit: Season-average equivalent on-tree returns received by growers, by State, variety and use, 1988/89-1990/91 1/

Variety		Fresh			Processing	9		All	
and	1988/89	1989/90	1990/91	1988/89	1989/90	1990/91	1988/89	1989/90	1990/91
State									
				Do	ollars per bo	ox 1/			
ORANGES:	7.04	10.01							
Florida	7.61	10.31	8.96	7.40	5.98	6.29	7.41	6.21	6.50
Early and midseason Valencia	7.65 7. 5 5	9.55 13.75	8.75 9.15	6.63 8.45	5.74 6.34	5.79 6.99	6.69 8.41	6.01 6.53	5.99 7.21
California	8.37	8.31	20.92	4.15	4.70				
Navel and miscellaneous	7.69	7.97	15.56	1.15 0.17	1.72 1.91	-0.61 -0.83	6.12 5.90	6.07 6.33	12.17
Valencia	9.56	9.06	28.29	1.92	1.53	-0.83	6.43	5.64	8.71 17.13
Arizona	9.33	8.50	20.68	0.86	2.38	-0.77	6.91	6.78	16.61
Navel and miscellaneous	11.29	9.97	14.16	-0.70	0.88	-0.83	10.20	9.06	12.44
Valencia	7.96	7.86	24.09	1.04	2.52	-0.76	5.34	6.06	18.52
Гехаѕ	6.92	7.92	2/	3.67	3.00	2/	6.40	5.71	2/
Early and midseason	7.39	7.92	2/	4.09	3.23	2/	6.90	6.19	2/
Valencia	6.02	2/	2/	3.03	2.43	2/	5.49	2.43	2/
United States 3/ Early, midseason,	8.21	8.57	15.39	6.76	5.27	5.85	7.08	6.16	7.31
and navel	7.74	8.23	12.63	6.12	5.21	5.37	6.52	6.14	6.38
Valencia	9.03	9.36	18.43	7.58	5.35	6.54	7.86	6.21	8.59
GRAPEFRUIT:									
Florida	6.03	10.00	8.79	3.24	3.06	1.63	4.45	5.65	5.43
Seedless	6.03	10.00	8.79	3.18	3.00	1.52	4.50	5.73	5.52
Seeded	4/	4/	4/	3.68	3.84	2.92	3.68	3.84	2.92
Texas Texas	5.06	7.34	2/	0.57	0.56	2/	4.21	6.00	2/
California	7.33	10.49	7.49	-1.54	-1.13	-1.97	4.55	6.28	4.17
Arizona	4.76	11.35	7.45	-1.57	-1.31	-2.00	2.76	8.27	4.66
United States 3/	6.05	10.00	8.55	2.84	2.53	1.22	4.41	5.86	5.26
EMONS:									
California	15.37	18.23	21.35	-1.11	0.16	-0.47	9.37	12.17	13.44
rizona	12.67	17.93	15.45	-1.15	-0.23	-0.33	6.05	11.21	8.95
Inited States	14.93	18.19	20.16	-1.12	0.10	-0.44	8.74	12.02	12.47
ANGERINES:									
lorida	19.10	24.40	25.60	4.24	2.29	3.13	12.64	15.28	17.27
California	16.86	22.56	24.39	0.34	1.03	-1.22	12.28	17.21	19.07
Arizona	16.96	18.96	21.09	-0.41	0.90	-1.22	13.49	14.75	17.26
Jnited States 3/	18.02	22.79	24.47	3.02	1.79	1.87	12.61	15.93	17.80
ANGELOS:									
Florida	8.25	8.05	10.15	5.25	3.30	3.20	6.31	5.10	6.31
EMPLES:									
Florida	7.15	17.75	11.15	4.95	4.30	3,53	5.46	5.64	5.94
IMES:									
lorida	15.24	14.83	22.52	-1.22	-2.10	-1.26	11.29	8.26	13.99

^{1/} Net content of box varies. Approximated averages are as follows: oranges-California and Arizona, 75 lbs.; Florida, 90 lbs.; Texas, 85 lbs.; grapefruit-California, desert valleys and Arizona, 64 lbs.; other California areas, 67 lbs.; Florida, 85 lbs.; Texas, 80 lbs.; lemons, 76 lbs.; tangelos and Temples, 90 lbs.; tangerines-California and Arizona, 75 lbs.; Florida, 95 lbs. 2/ Sales insignificant due to December 1989 freeze damage. 3/ U.S. average price is weighted by the size of the container. 4/ Fresh sales insignificant and included in processed. Source: National Agricultural Statistics Service, USDA.

Table 21--Citrus fruit: Season-average equivalent P.H.D. returns received by growers, by State, variety, and use, 1988/89-1990/91 1/

Variety		Fresh		F	Processing			All	
and	1988/89	1989/90	1990/91	1988/89	1989/90	1990/91	1988/89	1989/90	1990/91
State									
				Dollar	rs per box	2/			
ORANGES:	0.40	10.10	4004	0.05	7.00	0.44	0.00	0.00	0.05
Florida	9.46	12.16	10.81	9.25	7.83 7.59	8.14 7.64	9.26 8.54	8.06 7.86	8.35 7.84
Early and midseason Valencia	9.50 9.40	11.40 15.60	10.60 11.00	8.48 10.30	8.19	8.84	10.26	8.38	9.06
California	10.08	10.06	22.71	2.89	3.49	1.18	7.85	7.82	13.95
Navel and miscellaneous	9.36	9.67	17.28	1.84	3.61	0.89	7.57	8.03	10.43
Valencia	11.36	10.91	30.17	3.72	3.38	1.62	8.23	7.49	19.01
Arizona	11.08	10.30	22.50	2.65	4.22	1.08	8.67	8.60	18.44
Navel and miscellaneous	12.96	11.67	15.88	0.97	2.58	0.89	11.87	10.76	14.16
Valencia	9.76	9.71	25.97	2.84	4.37	1.12	7.14	7.91	20.40
Texas	7.99	9.10	3/	5.11	4.10	3/	7.53	6.85	3/
Early and midseason	8.46	9.10	3/	5.52	4.33	3/	8.02	7.34	3/
Valencia	7.09	3/	3/	4.46	3.53	3/	6.62	3.53	3/
United States 4/ Early, midseason,	9.94	10.32	17.21	8.59	7.10	7.70	8.90	7.98	9.15
and navel	9.43	9.94	14.40	7.96	7.03	7.21	8.32	7.93	8.21
Valencia	10.82	11.21	20.29	9.42	7.20	8.39	9.69	8.06	10.44
GRAPEFRUIT:									
Florida	7.63	11.60	10.39	4.88	4.72	3.29	6.08	7.29	7.06
Seedless	7.63	11.60	10.39	4.83	4.67	3.19	6.13	7.37	7.15
Seeded	5/	5/	5/	5.28	5.44	4.52	5.28	5.44	4.52
Texas	6.04	8.44	3/	1.77	1.56	3/	5.23	7.08	3/
California	8.99	12.22	9.22	0.12	0.60	-0.24	6.21	8.01	5.90
Arizona	6.42	13.08	9.18	0.09	0.42	-0.27	4.42	10.00	6.39
United States 4/	7.59	11.60	10.18	4.47	4.18	2.89	6.00	7.49	6.90
LEMONS:									
California	18.38	21.25	24.38	1.90	3.18	2.56	12.38	15.19	16.47
Arizona	15.68	20.95	18.48	1.86	2.79	2.70	9.06	14.23	11.98
United States	17.94	21.21	23.19	1.89	3.12	2.59	11.75	15.04	15.50
TANGERINES:									
Florida	21.60	27.00	28.20	7.14	5.29	6.13	15.31	18.35	20.02
California	18.66	24.41	26.27	2.14	2.88	0.66	14.08	19.06	20.95
Arizona	18.76		22.97	1.39	2.75	0.66	15.29		19.14
United States 4/	20.17	24.96	26.71	5.58	4.36	4.55	14.92	18.23	20.17
TANGELOS:									
Florida	10.10	9.90	12.00	7.25	5.30	5.20	8.26	7.04	8.24
TEMPLES:									
Florida	9.00	19.60	13.00	6.95	6.30	5.53	7.43	7.62	7.89
LIMES:									
Florida	21.60	21.20	28.20	3.18	2.30	3.14	17.18	13.87	19.21

^{1/} P.H.D.--Packinghouse-door. 2/ Net content of box varies. Approximated average as as follows: oranges-California and Arizona, 75 lb.; Florida, 90 lbs.; Texas, 85 lbs.; grapefruit-California, desert valleys and Arizona, 64 lbs.; other California areas, 67 lbs.; Florida, 85 lbs.; Texas, 80 lbs.; Texas, 80 lbs.; tangelos and Temples, 90 lbs.; tangerine-California and Arizon, 76 lbs.; Florida, 95 lbs. 3/ Sales insignificant due to December 1989 freeze damage. 4/ U.S. average price is weighted by the size of the container. 5/ Fresh sales insignificant and included in processed.

Table 22--U.S. citrus fruit: Production, use, and value, 1986/87-1990/91

			Use of prod			
Fruit	Production		esh	Proce	ssed	Value of
and		Quantity	Percentage	Quantity	Percentage	production
season						
				1 000		Million
	1 000 s	hort tons		1,000 short tons		dollars
Oranges:	1,000 3	HOLE TOLIS		311011 10113		donars
1986/87	7,697	2,070	26.9	5,627	73.1	1,322.5
1987/88	8,551	2,085	24.4	6,466	75.6	1,773.7
1988/89	8,949	2,016	22.5	6,933	77.5	1,848.5
1989/90	7,745	2,103	27.2	5,642	72.8	1,468.9
1990/91	7,887	1,205	15.3	6,682	84.7	1,672.0
Grapefruit:						
1986/87	2,586	1,200	46.4	1,386	53.6	414.4
1987/88	2,801	1,332	47.6	1,469	52.4	478.6
1988/89 1989/90	2,844 1,978	1,395 882	49.1 44.6	1,449 1,096	50.9 55.4	416.0 371.9
1990/91	2,255	1,240	55.0	1,015	45.0	380.8
	2,200	1,240	00.0	1,010	45.0	000.0
L <i>emons:</i> 1986/87	1,087	469	43.1	618	56.9	182.2
1987/88	785	459	58.5	326	41.5	202.0
1988/89	759	466	61.4	293	38.6	235.0
1989/90	706	466	66.0	240	34.0	279.8
1990/91	722	453	62.7	269	37.3	294.5
Limes:						
1986/87	63	37	58.7	26	41.3	19.6
1987/88	57	38	66.7	19	33.3	23.3
1988/89	55	42	76.4	13	23.6	21.5
1989/90	72 64	44	61.1	28	38.9	22.9
1990/91	04	41	64.1	23	35.9	27.9
Tangelos:	400			404	07.0	04.0
1986/87	180	59	32.8	121	67.2	24.6
1987/88 1988/89	189 171	63 61	33.3 35.7	126 110	66.7 64.3	32.6 31.4
1989/90	132	50	35.7 37.9	82	62.1	20.8
1990/91	119	53	44.5	66	55.5	21.8
Tangerines: 1/						
1986/87	228	157	68.9	71	31.1	69.7
1987/88	218	153	70.2	65	29.8	80.4
1988/89	239	153	64.0	86	36.0	83.1
1989/90	164	111	67.7	53	32.3	72.1
1990/91	164	116	70.7	48	29.3	77.8
Temples:						
1986/87	153	47	30.7	106	69.3	20.5
1987/88	160	58	36.3	102	63.8	27.9
1988/89	169	39	23.1	130	76.9	27.8
1989/90 1990/91	63 113	6 36	9.5 31.9	57 77	90.5 68.1	10.7 19.7
Total: 2/						
1986/87	11,994	4,039	33.7	7,955	66.3	2,053.5
1987/88	12,761	4,188	32.8	8,573	67.2	2,618.6
1988/89	13,186	4,172	31.6	9,014	68.4	2,663.2
1989/90	10,860	3,662	33.7	7,198	66.3	2,247.0
1990/91	11,324	3,144	27.8	8,180	72.2	2,494.5

^{1/} Per program modification, all tangerines include honey tangerines beginning with the 1987/88 season, and beginning with the 1989/90 season includes sunburst tangerines.
2/ Does not include Florida lemons and k-early citrus fruit.

Source: National Agricultural Statistics Service, USDA.

Table 23--Percentage of total production used for processing, selected citrus fruit, by State, 1983/84-1990/91

State	1000/04	1004/05	1005/00	1000/07	1007/00	1000/00	1000/00	1000/01
and	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
variety								
				Perd	cont			
				1 610	Jent			
ORANGES:								
Florida	93.5	93.6	92.5	92.6	93.1	94.2	94.6	91.8
Early and midseason	92.9	92.0	92.0	92.0	92.5	93.6	92.9	93.2
Valencia	94.3	95.4	93.0	93.3	93.9	95.0	97.5	90.0
Temples	73.7	80.7	69.1	69.0	63.6	76.8	90.1	68.4
California	22.6	22.9	19.1	28.0	30.0	31.1	34.0	40.7
Navel and miscellaneous	24.8	11.8	19.7	23.2	21.0	23.8	27.1	41.8
Valencia	17.6	34.0	18.2	35.0	40.4	41.0	45.4	39.1
Texas	44.6	0.0	6.5	10.3	10.8	15.9	45.0	0.0
Navel and miscellaneous	28.1	0.0	5.0	8.0	10.9	14.9	36.9	0.0
Valencia	100.0	0.0	9.1	13.3	10.6	17.7	100.0	0.0
Arizona	16.2	21.7	19.0	27.4	21.7	28.5	28.0	19.0
Navel and miscellaneous	12.5	6.0	11.8	14.0	6.6	9.1	10.0	11.5
Valencia	17.6	26.8	21.6	35.3	29.3	37.8	33.8	22.4
GRAPEFRUIT:								
Florida	59.3	65.9	58.0	58.0	57.1	56.3	62.6	47.0
Seedless	54.2	63.7	55.0	55.4	54.8	53.5	61.1	45.0
Colored	32.7	37.0	28.4	30.7	31.1	33.0	43.0	27.8
White	66.8	78.4	73.7	73.7	72.5	71.0	77.5	62.3
Other seeded	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
California	36.2	29.5	29.6	37.1	34.1	31.3	36.2	35.0
Desert Valley	39.5	31.6	33.3	39.5	38.1	27.1	31.4	28.6
Other areas	33.3	28.0	26.7	35.0	30.6	34.4	39.0	40.0
Arizona	32.0	34.9	35.7	36.7	33.3	31.5	24.3	29.5
Texas	10.6	0.0	9.1	19.2	26.7	19.0	19.8	0.0
TANGERINES:								
Florida 1/	37.5	48.6	39.0	37.5	34.1	43.5	41.2	37.1
California	50.3	31.8	29.4	26.8	27.1	27.7	24.8	20.8
Arizona	21.9	18.2	24.2	19.4	16.7	20.0	23.3	17.2
Total	37.9	35.3	32.4	30.2	29.2	35.0	31.7	28.5
LEMONS:								
California	46.4	52.8	37.1	53.5	40.6	36.4	33.5	36.2
Arizona	42.0	60.2	39.0	67.0	46.2	47.9	37.0	41.2
Total	45.7	54.4	37.4	56.8	41.6	38.6	34.1	37.3

^{1/} Per program modification, all tangerines include honey tangerines beginning with the 1987/88 season. Estimates starting with the 1982/83 season have been revised to include the honey variety. Beginning with the 1989/90 season includes sunburst tangerines.

Source: National Agricultural Statistics Service, USDA.

Table 24--Frozen concentrated citrus juices: Canners' stocks, packs, supplies, and movement, Florida, 1986/87-1990/91

-		Pack		Other su	pplies 1/	Sup	ply	Mov	ement	
Item and	Carryin	То	Total	То	Total	То	Total	То	Total	Stocks 2/
season	season	date 2/	season	date 2/	/ season	date 2/	season	date 2/	season	
					1,000 ga	llons 3/				
Oranges:					1,000 ga					
1986/87	36,995	145,056	145,056	70,198	82,972	252,249	265,023	193,284	225,233	58,965
1987/88	39,790	169,973	169,973	57,772	70,815	267,535	280,578	207,940	238,494	59,595
1988/89	42,084	174,717	174,717	50,329	64,388	267,130	281,189	206,184	234,950	60,946
1989/90	46,306	90,285	90,285	82,550	94,461	219,141	231,052	166,149	191,060	52,992
1990/91	39,933	151,396		56,911		248,240		196,273		51,967
Grapefruit:	•									
1986/87	3,422	28,875	28,875	1,206	1,369	33,503	33,666	25,043	28,450	8,460
1987/88	5,216	31,906	31,906	1,342	1,557	38,464	38,679	24,684	28,881	13,780
1988/89	9,798	32,466	32,466	594	656	42,858	42,920	24,699	27,602	18,159
1989/90	15,152	21,774	21,774	735	905	37,661	37,831	22,003	25,365	15,658
1990/91	12,465	21,672		322		34,459		23,221		11,238
Tangerines	s:									
1986/87	279	373	373	463	98	1,115	750	993	660	122
1987/88	90	583	583	659	659	1,332	1,332	882	1,007	450
1988/89	325	495	495	92	97	912	917	802	836	110
1989/90	81	371	371	233	233	685	685	463	569	222
1990/91	116	279		221		616		435		181

^{1/} Includes domestic production received by members from nonmembers, foreign product imported by members, reprocessed tangerine juice, and chilled orange juice used in FCOJ.

Source: Florida Citrus Processors Association.

Table 25--Canned citrus juices: Canners' packs, supplies, and movement, Florida, 1986/87-1990/91

Item and			Total		
season 1/	Carryin	Pack	supply	Movement	Carryou
		1,00	0 cases, 24 # 2 cans	2/	
Oranges: 3/					
1986/87	986	8,122	9,108	8,084	1,024
1987/88	1,024	7,256	8,280	7,425	855
1988/89	855	8,164	9,019	8,227	792
1989/90	792	6,640	7,432	6,817	615
1990/91	615	7,130	7,745	7,199	545
Grapefruit: 3/					
1986/87	1,515	8,982	10,497	9,027	1,471
1987/88	1,471	7,724	9,195	7,871	1,323
1988/89	1,323	7,956	9,279	7,885	1,394
1989/90	1,394	5,986	7,380	6,581	799
1990/91	799	6,678	7,477	6,669	808
Blend:					
1986/87	126	533	659	533	126
1987/88	126	449	575	458	117
1988/89	117	434	551	426	116
1989/90	116	334	450	374	76
1990/91	76	450	526	481	45

^{1/} Season beginning approximately October 1.

Source: Florida Citrus Processors Association.

^{2/} For 1990/91 season, week ending October 12; 1989/90, October 13; 1988/89, October 14; 1987/88, October 8; and 1986/87, October 10. These respective dates include data through the 45th week of each season.

^{3/} Oranges--42.0 degrees Brix, grapefruit--40 degrees Brix, and tangerines--42 degrees Brix.

^{2/} Single-strength.

^{3/} Includes reconstituted juice.

Table 26--Orange and grapefruit processed, Florida, 1982/83-1990/91

Crop				
and	Frozen	Chilled	Other	Total
season	concentrates	products	processed 1/	processed
		1,000	boxes	
Oranges: 2/				
1982/83	114,627	18,254	2,665	135,546
1983/84	94,547	16,981	2,909	114,437
1984/85	86,112	14,903	1,907	102,922
1985/86	96,061	17,267	1,361	114,689
1986/87	96,182	19,661	948	116,791
1987/88	110,206	23,325	904	134,435
1988/89	113,732	29,902	1,141	144,775
1989/90	73,640	33,836	659	108,135
1990/91	104,136	38,366	568	143,070
Grapefruit:				
1982/83	13,977	- 1,731	5,379	21,087
1983/84	18,728	1,320	4,191	24,239
1984/85	22,996	1,065	4,951	29,012
1985/86	21,572	1,189	4,369	27,130
1986/87	24,143	2,295	2,424	28,862
1987/88	26,690	1,965	2,085	30,740
1988/89	26,621	2,626	1,601	30,848
1989/90	19,405	1,931	1,019	22,355
1990/91	17,413	3,396	373	21,182

^{1/} Includes cannery juice, blends, sections and salads.

^{2/} Includes tangelos, Temples, tangerines and k-early citrus.

Smaller Crops and Strong Demand Boost Noncitrus Price

Prices for many noncitrus crops are generally higher for the second consecutive year.

The 1991 production forecasts for major noncitrus fruits indicated smaller crops of grapes, pears, cherries (sweet and tart), nectarines, and olives. Slightly larger crops of apples, peaches, prunes, cranberries, and strawberries are expected. Prices for most noncitrus crops are higher, reflecting shorter crops, or, as with apples, strong demand. Prices for stored noncitrus fresh fruit are expected to remain firm throughout the marketing season because of strong domestic and export demand.

1991 Apple Crop Forecast Revised Up

The final forecast for the 1991 U.S. apple crop was 10.1 billion pounds, 4 percent larger than the 1990 crop. The estimate was increased fractionally in October following a larger than expected pick-out in Michigan.

Increased production in the Central and Eastern States offset declines in the Western States. Limited spring freeze damage and generally favorable growing conditions through the entire season in the Eastern States led to a 21percent increase in apple output. In the Central States, apple production was 13 percent greater than last year, and the harvest was almost a month ahead of normal in Michigan. However, production in the Western States, which typically provides over one-half of the U.S. total, was 4 percent less than in 1990 because of winter damage.

As harvest progressed in October, the U.S.-average grower price for fresh apples dropped to 24.9 cents per pound from September's season high of 29.1 cents. U.S. retail prices for apples reported by the Bureau of Labor Statistics averaged 97.4 cents per pound in September, 10 percent above a year earlier.

The late harvest in Washington contributed to cumulative season total U.S. shipments through the end of October of 268.3 million pounds, compared with 373.4 million pounds at the same time last year. Strong domestic demand and increased export opportunities because of a smaller European apple crop are expected to keep apple prices at least as high as in the 1990/91 marketing season.

1991 Grape Forecast Revised Up Slightly, but Still Less Than Last Year

U.S. grape production is expected to be 5.39 million short tons, up 2 percent from the September 1 forecast, but still 5 percent less than in 1990. California's crop suffered less damage from the hot weather in July than previously thought.

California's all-grape production is expected to be 4.83 million tons, 2 percent above the September estimate, but still 7 percent below last year. The Washington grape forecast is 187,000 tons, 4 percent higher than the 1990 crop. New York and Pennsylvania production is up 32 percent and 42 percent, respectively, from last year.

Table 27--U.S. noncitrus fruit production, 1988-91

				Indicated
Commodity	1988	1989	1990	1991
		1,000 sł	nort tons	
A a al a a	4.504	4.004	4.040	5.004
Apples	4,564	4,981	4,848	5,064
Apricots	102	120	122	95
Cherries, sweet	186	194	157	120
Cherries, tart	118	132	104	80
Cranberries	204	187	172	201
Grapes	6,034	5,931	5,660	5,387
Nectarines	200	200	211	210
Olives	88	123	131	60
Peaches	1,307	1,167	1,103	1,273
Pears	861	917	964	882
Plums and prunes	738	1,018	733	776
Strawberries 1/	590	549	604	635
Total	14,991	15,520	14,808	14,782

^{1/} Major producing States only.

Michigan's grape forecast of 46,000 tons is unchanged from last year.

Production of California raisin-type grapes, forecast at 1.95 million tons, was 17 percent below last year, and table-type grape production was down 10 percent. On the other hand, 1991 California wine-type grapes were not affected by the summer heat wave and are expected to total 2.30 million tons, up 5 percent from last year.

1991 Pear Crop Down

The final forecast for the 1991 U.S. pear crop was 882,100 short tons, down 8 percent from 1990. A severe freeze in December 1990 dropped production 12 percent in the Pacific Coast region. The shorter crop and late harvest led to much higher prices earlier this fall. The U.S. grower price for fresh pears averaged \$477 per ton in September, 25 percent higher than last year. In October, grower prices dropped to \$411 per ton, but remained 23 percent above October 1990.

Wholesale prices in New York for Bartlett pears (100 size) averaged \$16 per 36-lb. carton at the end of Throughout October, September. wholesale prices ran \$5 to \$7 higher than last year. Also indicative of the shorter crop and later harvest was total shipments, which as of October 26, 1991, were 126,900 short tons, compared with 159,150 short tons at the end October 1990. The short crop in the Northwest has also led to higher processed pear prices. In late September, canners raised pack prices from 3 to 7 percent.

With the aid of a third-party conciliator appointed by the American Arbitration Association, the California Pear Growers Association finally reached an agreement with Del Monte Foods on the cannery price for 1991 Bartlett pears. California's shorter crop and heavy demand for California pears from canners in the Northwest contributed to a price of \$229 per ton, the second highest in history. Growers will receive \$227 per ton and \$2 will go into a research fund.

The 1991 cannery price for Pacific Northwest pears is \$225 per ton for Grade #1, up from \$215 per ton in 1990.

Larger Peach Crop in East Lowers Prices, but Late Season Prices Rebound

U.S. peach production in 1991 is expected to be 2.55 billion pounds, up 15 percent from last year when a spring freeze reduced production in the East. The larger crop lowered grower prices in July and August to 20-30 percent below last year. However, as the 1991 season concluded, grower prices rose above 1990, leaving the U.S. season-average grower price for fresh peaches down less than 5 percent from 1990.

According to the California Cling Peach Advisory Board, 1991 cling peach deliveries were up less than 1 percent from last year. Although deliveries were up, the California Canning Peach Association reported the pack was 5-6 percent smaller than last

Table 28--U.S.-average monthly prices received by growers for fresh-market fruit, 1989-91 1/

	Fr	Fresh apples		Fr	Fresh peaches		Fr	Fresh pears			Fresh strawberries		
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991	
	Doll	ars per po	ound	Dol	lars per p	ound	Do	ollars per	ton	De	ollars per	pound	
January	0.181	0.122	0.200				336	303	351	0.830	1.150	1.250	
February	.179	.124	.203				362	345	358	.938	.832	1.010	
March	.165	.123	.202				368	357	395	.682	.740	.682	
April	.144	.120	.199				350	370	390	.448	.503	.734	
May	.135	.126	.225	0.266	0.292	0.344	397	438	431	.350	.352	.500	
June	.108	.137	.242	.220	.244	.306	491	589	754	.559	.469	.425	
July	.115	.203	.248	.196	.273	.164	375	410		.311	.407	.460	
August	.159	.223	.246	.223	.250	.191	295	273	399	.350	.500	.350	
September	.167	.245	.291	.266	.246	.260	331	385	477	.650	.550	.350	
October	.143	.193	.249	.225		.240	347	335	411	.950	.750	.450	
November	.133	.196					299	344		1.660	1.250		
December	.121	.208					285	333		1.160	1.090		

^{-- =} Not available

^{1/} Equivalent packinghouse-door returns for California, New York (apples only), Oregon (except peaches), and Washington. Prices as sold for other states. Source: National Agricultural Statistical Service, USDA.

An increased incidence of pit fragments and bruising that accompanied this year's somewhat larger fruit reduced packout yields. Canners adjusted the 1991 base price of commercial contracts to \$224 per ton by mid-November. The 1991/92 supply is estimated to be about 7 percent below last season's. Canned peach prices should remain firm through next spring.

The U.S. Department of Agriculture held a public meeting in September 1991 to discuss whether to continue Federal marketing orders for peaches and nectarines grown in California. Growers narrowly approved the continuation of marketing orders in a January 1991 referendum. Both orders

authorize grower advertising and promotion, production and marketing research, package and container requirements, and grade and size requirements for fruit. Written comments were received from nearly 200 interested persons. The Department will decide, based on all information provided, about continuing either or both marketing orders.

Cherry Production Cut by Freeze, Record Strawberry Crop

Freezing temperatures in April followed by poor pollinating weather dropped expected tart cherry production to 80.3 short tons, 23 percent lower than last year. A cold wave in December 1990, cool spring temperatures, and heavy June rains combined to reduce the expected 1991 sweet cherry crop by 24 percent.

The major strawberry-producing States had a record-large crop of 636,000 short tons in 1991, up 6 percent from 1990. Spring strawberry production in the five major producing States (California, Michigan, New Jersey, Oregon, and Washington) was forecast up from 540,000 short tons in 1990 to 570,000 in 1991. Because of the large crop, grower prices did not show as much seasonal increase as usual in the fall.

U.S. Exports of Fresh Noncitrus Fruit Continue To Grow

Reduced production in Europe and continued strong demand in Asia should boost key U.S. fresh noncitrus exports in 1992.

U.S. fresh apple, pear, peach, and nectarine exports have accounted for a larger share of U.S. fresh market utilization creating a closer relationship between the domestic fresh fruit industry and the international market. Fresh apple exports as a proportion of U.S. fresh market utilization rose from 8 percent in 1985/86 to nearly 15 percent in 1990/91. Also during that period, pear exports rose from 9 percent to 23 percent of U.S. fresh market utilization. The proportion of peaches and nectarines exported also rose, from about 2 to almost 7 percent. The U.S. market share of world exports of these fresh fruits has also been on a general upward trend during the last 20 years.

Strong Apple Export Market Ensured

A combination of more liberalized trade policies especially in Pacific Rim nations and a much smaller 1991 European apple crop is expected to boost fresh apple exports to a record high during the 1991/92 marketing Since 1988, the Philippines, Mexico, Indonesia, Venezuela, Sweden, and Thailand have reduced trade barriers and are fast becoming significant markets for U.S. apples. According to the Foreign Agricultural Service (FAS), markets in these countries in the Pacific Rim are opening more each year and are far from saturation. Import license

restrictions in Korea and plant health concerns in Japan and Korea continue to restrict access to these promising U.S. apple export markets.

The traditionally large U.S. markets, Taiwan and Canada, however, together receive about 40 percent of U.S. apple exports. In 1990, the United States supplied about 80 percent of total Canadian apple imports, up from 60 percent in 1986. U.S. apple exports to Canada were \$57.1 million during the marketing year beginning July 1990, up from \$39.4 million the year before. Total U.S. apple exports were up 35 percent from the previous year.

Apple exports to the EC-12 in 1990/91 were \$25.1 million, up from \$15.5 million in 1989/90. A substantial increase is expected this year because unseasonably cold weather in April and May 1991 reduced Western Europe apple production by an estimated 28 percent from last year. The apple crop in France, Europe's largest producer and the world's leading exporter, if intra-EC trade is considered, is expected to be cut in half. In early October, U.S. shippers reported increased interest in exporting Granny Smith and other apple varieties to the United Kingdom and other parts of Europe. FAS estimates that the short crop in Europe could increase total U.S. apple exports 5-10 percent during the 1991/92 marketing season that began in July.

Pear Exports Climb as Well

Since 1985, a lower-valued dollar, export promotion, market liberalization, and expanded U.S. production have helped increase the U.S. share of the world pear export market. The U.S. market share of world fresh pear exports was 11 percent in 1990/91, up from 8 percent in 1987/88.

Fresh pear exports in 1990/91 (July/June) surged 18 percent over 1989/90. During the 1991/92 marketing season, U.S. pear exports are expected to be up 5-10 percent. Canada remains the largest market with 38 percent of U.S. fresh pear exports.

In the last several years, production shortfalls, U.S. market promotion, and more liberalized trade policies have increased fresh pear exports to Mexico. In 1990/91, the U.S. exported 23,611 metric tons to Mexico, or about 25 percent of U.S. pear exports. During 1991, pear production in Mexico is expected to drop 37 percent, caused in part by the removal of old trees. Mexican imports in 1991/92 are expected to reach 30,000 metric tons.

The EC is the third largest export market for U.S. fresh pears, accounting for nearly 10 percent of fresh pear exports in 1990/91. The 1991 spring freeze reduced the EC pear crop by almost 25 percent.

Smaller Peach Crop in Canada Offers Opportunities in 1991

Because of storage limitations and requirements for gentle handling and transport, fresh peaches and nectarines are shipped mainly to the geographically close markets of Canada (about 80 percent of U.S. exports) and Mexico (14 percent). The 1991 Canadian peach crop, estimated at 43,000 metric tons, was down 12 percent from the relatively large 1990 crop. Less Canadian production in 1991 and a reduction in the Canadian import duty from 12.5 percent in 1988 to 8.75 percent in 1991 contribute to expectations of increasing U.S. peach exports. USDA's Foreign Agricultural Service expects total U.S. peach exports to be up 25 percent in 1991 from the previous year.

In October, Canada removed a snapback duty on peaches that was imposed in July 1991, when the price of imported peaches fell below the benchmark price for each of 5 consecutive working days in mid-July. The snapback brought the duty up to the 12.5-percent rate that prevailed before the U.S.-Canada Free Trade Agreement.

Figure 10

U.S. Share of World Fresh Fruit Trade

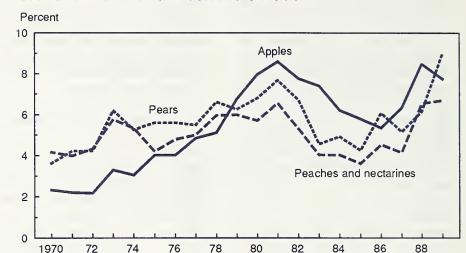


Table 29--U.S. exports of selected fresh fruit and export share 1/ of U.S. fresh use, 1985/86-1990/91

Commodity	Unit	1985/86	1986/87	1987/88	1988/89	1989/90	1990/91
Apples 2/	Million pounds	327.3	369.1	654.7	575.5	734.8	810.6
	Percent	7.8	8.3	11.7	11.0	12.5	14.6
Peaches and	Million pounds	32.0	43.0	44.7	65.4	88.7	86.7
nectarines 3/	Percent	2.4	3.0	3.0	4.0	6.2	6.6
Pears 4/	Million pounds	65.4	80.2	96.6	134.0	166.7	217.0
	Percent	9.4	10.7	10.6	15.7	18.4	23.2

^{1/} Exports to Canada prior to 1990/91 are underreported.

Sources: Commodity Economics Division, ERS and Foreign Argricultural Service, USDA.

^{2/} Apple season begins in August.

^{3/} Peach season is calendar year beginning with first year listed.

^{4/} Pear season begins in July.

Table 30--Apples: Commercial production 1/ and season-average prices received by growers, 1989-91

Area		Total productio	n	Price pe	r pound
and			Indicated		
State	1989	1990	1991	1989	1990
		Million pounds		Ce	ents
Eastern States:		·			
Maine	69	88	79	21.1	22.4
New Hampshire	41	48	45	23.1	24.2
Vermont	45	43	48	19.2 21.8	21.3 23.9
Massachusetts Rhode Island	78 6	85 6	78 5	21.6	25.8 25.8
Connecticut	24	33	27	24.3	26.4
New York	960	990	1,010	10.4	12.9
New Jersey	48	60	100	15.3	13.0
Pennsylvania	320	450	510	10.7	14.3
Delaware	15	17	25	11.3	11.6
Maryland	37	33	75	11.2	13.7
Virginia	325	210	420	10.2	10.1
West Virginia	115	150	190	9.8	9.6
North Carolina	220	230	320	8.8	10.2
South Carolina	35	34	45	12.0	12.7
Georgia	25	22	35	14.0	13.2
Total	2,363	2,499	3,012		
Central States:					
Ohio	125	120	120	17.9	17.4
Indiana	64	57	60	18.7	20.0
Illinois	91	60	79	13.0	17.5
Michigan	950	750	850	8.2	10.3
Wisconsin	65	48	61	15.6	25.0
Minnesota	31	20	23	27.8	37.4
lowa	12	10	10	20.8	22.1
Missouri Kansas	55 13	41 8	37	13.6	16.9
Kentucky	16	9	11 20	20.9 18.0	21.5 20.5
Tennessee	12	9	14	14.7	20.5 17.9
Arkansas	9	12	11	18.8	19.1
Total	1,442	1,143	1,295		
Western States:					
Idaho	158	165	130	7.9	13.5
Colorado	70	35	75	9.6	14.7
New Mexico	5	7	3	20.0	17.9
Utah	56	24	45	12.0	18.8
Washington	5,000	4,800	4,600	9.3	16.2
Oregon	160	180	115	5.0	11.2
California	675	780	800	15.0	15.6
Arizona 2/	34	64	53	7.4	8.0
Total	6,158	6,055	5,821		
United States	9,963	9,697	10,128	10.4	15.0

^{1/} In orchards of 100 or more bearing age trees. Includes unharvested production and harvested, not sold: U.S. 1989-45.4, 1990-38.6. 2/ Estimates begin with the 1989 crop.

Table 31--Grapes: Total production and season-average price received by growers in principal States, 1989-90, and indicated 1991 production

		Total production		Price pe	r ton
States		·	Indicated		
	1989	1990	1991	1989	1990
		1,000 short tons		Do	llars
Arizona	26.5	26.0	25.0	674	870
Arkansas	6.5	5.1	8.3	319	327
Georgia	2.8	2.9	3.2	781	777
Michigan	43.0	46.0	46.0	265	291
Missouri	3.6	1.3	2.7	348	354
New York	152.0	144.0	190.0	277	286
North Carolina	1.7	1.5	1.8	406	533
Ohio	8.0	7.7	7.9	266	304
Oregon	7.5	7.0	9.5	740	780
Pennsylvania	60.0	53.0	75.0	274	285
South Carolina	0.3	0.4	0.4	810	803
Washington	229.0	180.0	187.0	302	316
Total 1/	540.9	474.9	556.8		
California:					
Wine	2,190.0	2,195.0	2,300.0	340	308
Table	630.0	645.0	580.0	449	429
Raisin 2/	2,570.0	2,345.0	1,950.0	258	233
All	5,390.0	5,185.0	4,830.0	314	289
United States	5,930.9	5,659.9	5,386.8	314	294

^{1/} Some figures may not add due to rounding.

^{2/} Fresh basis.

Table 32--U.S. monthly retail prices for selected fresh-market fruits and juice, 1989-91

	Val	encia orar	nges	Na	vel orang	es	Orange ju	lice, cond	centrate 1/		Grapefru	
Month	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
	Dol	lars per p	ound	Doll	ars per p	ound	Doll	ars per po	ound	Doll	ars per pe	ound
January				0.521	0.501	0.823	1.868	1.817	2.005	0.443	0.532	0.611
February				.464	.580	.930	1.834	1.980	1.971	.423	.579	.595
March				.471	.570		1.834	2.150	1.902	.411	.626	.603
April				.511	.560		1.837	2.214	1.909	.417	.690	.615
May			0.756	.534	.578		1.867	2.241	1.877	.467	.737	.625
June		-	.871		.621		1.854	2.276	1.848	.520	.778	.686
July	0.613	0.575	.927				1.857	2.289	1.807	.587	.828	.695
August	.603	.571	.983				1.900	2.227	1.767	.664	.755	.676
September	.588	.561	1.053			••	1.920	2.262	1.756	.728	.664	.662
October	.590	.524	1.050				1.893	2.210	1.700	.638	.575	.002
November	.590	.524		.585	.585		1.835	2.102		.532	.551	
December				.528	.563		1.797	2.021		.473	.564	
December		Lemons			lelicious a	nnlos	1.797	Bananas		.473	Peaches	
	1989	1990	1991	1989	1990	1991	1989	1990	1991	1989	1990	1991
	1909	1990	1991	1909	1990	1991	1909	1990	1991	1909	1990	1991
	Dol	lars per p	ound	Doll	ars per p	ound	Doll	ars per po	ound	Doll	ars per p	ound
January	0.888	0.925	1.133	0.729	0.601	0.810	0.394	0.429	0.438			
February	.873	.933	1.096	.749	.632	.838	.415	.492	.485		1.313	1.243
March	.953	1.015	1.079	.741	.652	.843	.450	.500	.577		1.284	1.273
April	.959	1.127	1.183	.697	.650	.860	.523	.481	.547		1.204	1.270
May	.961	1.101	1.271	.697	.653	.892	.522	.462	.584			
June	1.040	1.103	1.296	.692	.697	.936	.479	.447	.532	0.915	.811	.999
July	1.043	1.179	1.338	.682	.750	.956	.456	.529	.516	.756	.895	.786
August	1.041	1.175	1.294	.740	.832	.964	.434	.463	.416	.746	.924	.693
September	1.102	1.158	1.288	.719	.877	.974	.428	.465	.432	.923	.940	.788
October	1.102	1.145	1.200	.649	.765	.314	.432	.432	.402	.325	.540	.700
November	1.021	1.076		.590	.741		.435	.429				
December	.960	.974		.573	.772		.416	.430				
December		Anjou pe	ars			ss grapes		rawberrie	es 2/			
	1989	1990	1991	1989	1990	1991	1989	1990	1991			
	Doll	lars per po	ound	Doll	ars per po	ound	Dollars	s per 12 o	z. pint			
January	0.677	0.675	0.739			1.942						
February	.668	.736	.795	1.381	1.380	1.483		1.638	1.467			
March	.710	.757	.812	1.501	1.144	1.432	1.218	1.338	1.268			
April	.743	.787	.827	1.144	1.108	1.502	.966	1.109	1.112			
May	.774	.783	.849	1.337	1.455		.831	.781	.976			
June		.814	.976									
	.797			1.272	1.369	1 276	1.055	.987	.924			
July August				1.121	1.238	1.376	1.117	.965	.948			
August				.958	.993	1.073	.986	1.081	.961			
September				.970	1.064	1.019	1.087	1.210	1.014			
October				1.166	1.266							
November	750	700		1.494	1.544							
December	.759 ole.	.789		••								

^{-- =} Not available.

Source: Bureau of Labor Statistics, U.S. Department of Labor.

^{1/} Per 16 ounce in 12 ounce cans.

^{2/} Dry pint.

Table 33--Fresh fruit: Retail price, marketing spreads, and grower-packer return per pound, sold in the Northeast region, season average, 1988/89-90/91 1/

					cker return
Commodity, production	Retail	Marketing		(f.o.b. shippir	ng point price) 2
area, and season	price		Percent of		Percent of
		Absolute	retail price	Absolute	retail price
	Cents	Cents	Percent	Cents	Percent
Apples, Red Delicious,					
Washington					
OctJune					
1988/89	81.8	51.8	63	30.0	37
1989/90	74.1	50.6	68	23.5	32
1990/91	90.5	51.3	57	39.2	43
Grapefruit,					
Florida					
NovApr.					
1988/89	42.8	30.1	70	12.7	30
1989/90	50.8	33.4	66	17.4	34
1990/91	55.1	40.1	73	15.0	27
Lemons,					
California					
AugJuly					
1988/89	97.6	62.8	64	34.8	36
1989/90	104.9	67.6	64	37.3	36
1990/91	125.0	82.5	66	42.5	34
Oranges, navel,					
California					
DecMay					
1988/89	49.4	30.3	61	19.1	39
1989/90	59.7	40.0	67	19.7	33
1990/91	83.3	44.4	53	38.9	47
Oranges, Valencia,					
California					
May-Nov.					
1988	63.3	43.8	69	19.5	31
1989	61.7	40.6	66	21.1	34
1990	59.9	40.9	68	19.0	32

^{1/}Season average prices are weighted averages (monthly average prices weighted by monthly arrivals in New York City).

^{2/} Adjusted to account for waste and spoilage incurred during marketing.

Sources: Bureau of Labor Statistics, U.S. Department of Labor, and Economic Research Service, USDA.

Table 34--Fresh fruit: Retail price, marketing spreads, and grower-packer return per pound, sold in the North Central region, season average, 1988/89-90/91 1/

O	Detell	Mantantina			cker return
Commodity, production	Retail	Marketing	Percent of	(r.o.b. snippii	ng point price) 2/ Percent of
area, and season	price	Absolute	retail price	Absolute	retail price
	Cents	Cents	Percent	Cents	Percent
Apples, Red Delicious,					
Washington					
OctJune					
1988/89	76.0	46.1	61	29.9	39
1989/90	67.6	43.8	65	23.8	35
1990/91	84.3	46.7	55	37.6	45
Grapefruit,					
Florida					
NovApr.					
1988/89	48.7	35.7	73	13.0	27
1989/90	56.9	40.3	71	16.6	29
1990/91	59.4	44.2	74	15.2	26
Lemons,					
California					
AugJuly					
1988/89	102.4	68.8	67	33.6	33
1989/90	111.0	73.8	66	37.2	34
1990/91	119.5	81.4	68	38.1	32
Oranges, navel,					
California					
DecMay					
1988/89	56.0	36.7	66	19.3	34
1989/90	56.7	36.9	65	19.8	35
1990/91	76.8	43.5	57	33.3	43
Oranges, Valencia,					
California					
May-Nov.					
1988	61.6	42.0	68	19.6	32
1989	61.0	39.9	65	21.1	35
1990	57.1	38.2	67	18.9	33

^{1/} Season-average prices are weighted averages (monthly average prices weighted by monthly arrivals in Chicago).

Sources: Bureau of Labor Statistics, U.S. Department of Labor, and Economic Research Service, USDA.

^{2/} Adjusted to account for waste and spoilage incurred during marketing.

Near-Record U.S. Tree Nuts Supplies for 1991/92

Abundant U.S. tree nut supplies should maintain exports and domestic consumption at near-record levels. World tree nut supplies are much smaller for almonds and hazelnuts, but are very large for pistachios, pecans, and walnuts. U.S. marketing opportunities remain excellent for all tree nuts.

1991/92 Production Normal, but Record Stocks Sustain Supply

Record carryin stocks and near normal production of most U.S. tree nut crops have resulted in a total tree nut supply that is moderately lower than last season's record. U.S. almond and pistachio supplies are smaller but hazelnut, pecan, and walnut supplies are larger or nearly the same as last season. The marketable quantity of all U.S. tree nuts will total 1.4 billion pounds, shelled basis, down 6 percent from the record 1990/91 season and nearly equal to 1988/89. abundant supplies are available at a time when foreign supplies are lower for most tree nut crops, especially almonds and hazelnuts. U.S. use is expected to exceed last season's record, but exports will likely fall below the 1990/91 record.

Total U.S. tree nut production in 1991, at 832 million pounds, shelled basis, is about 20 percent below the 1987 record, but still above the average for the previous 10 seasons. Beginning stocks, at 410 million pounds, are the highest-ever due to last year's record production of all tree nuts.

World Almond Supply Declines

Almond production in 1991/92 by the world's leading producers is expected to total 316,900 metric tons, shelled basis. This is 23 percent lower than last season's record of 412,900 tons.

Almond production in Spain and Portugal is expected to return to normal while record crops are forecast in Morocco and Turkey. However, these increases are more than offset by substantially smaller crops in the United States, Greece, and Italy.

U.S. almond production is forecast at 208,700 metric tons (460 million pounds), shelled basis, potentially the smallest crop since 1986. The 1991 crop is down 30 percent from last year's record due to fewer bearing acres and March rains that eased the drought situation, but caused widespread flower loss. Cool weather in April also resulted in higher-than normal nut drop and delayed maturity.

Domestic almond consumption is expected to surge past last season's record and exports are also likely to be record high according to industry sources. This will result in low ending stocks for the 1991/92 season. Likewise, world almond consumption and exports are expected to exceed previous records and 1991/92 ending stocks will be much lower than normal.

U.S. grower prices for almonds will strengthen during the 1991/92 season. With improving demand, the price outlook is excellent for 1992/93.

Figure 11
Almonds: Production and Season-Average
Grower Price

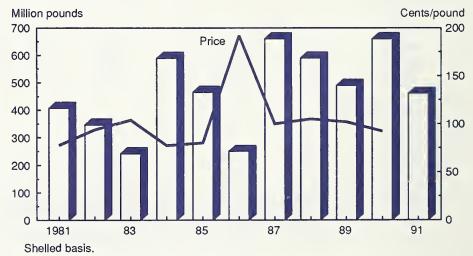


Table 35--Tree nuts: Production in principal States, 1988-91

Crop				
and				Indicated
State	1988	1989	1990	1991
		1,00	00 pounds	
			elled basis)	
Almonds:	E00.000	400.000	660,000	460.000
California	590,000	490,000	660,000	460,000
Manadamia uuta.		(in-s	shell basis)	
<i>Macadamia nuts:</i> Hawaii	45,500	50,500	50,000	
	,		23,555	
Pistachios: California	94,000	39,000	118,000	48,000
Canorna	34,000		·	40,000
			ort tons shell basis)	
Hazelnuts:		(111-3	orien basisj	
Oregon	16,300	12,800	21,500	25,00
Washington 2 States	200 16,500	200 13,000	300 21,800	300 25,300
2 oraics	10,500	10,000	21,000	20,000
<i>Walnuts, English:</i> California	209,000	229,000	227,000	250,000
Camornia	209,000	229,000	227,000	250,000
			0 pounds	
Pecans:		(sne	elled basis)	
North Carolina	5,500	700	400	2,500
South Carolina	6,500	1,000	500	3,000
Georgia	110,000	85,000	65,000	95,000
Florida	6,000	7,000	3,600	4,200
Alabama	10,000	22,000	5,000	13,00
Mississippi	10,000	8,500	2,200	7,00
Arkansas	3,000	1,000	250	1,20
Louisiana Oklahoma	22,000 47,000	14,000	6,000	15,000
Texas	60,000	9,000 55,000	5,000 60,000	15,00 65,00
New Mexico	26,000	29,000	34,000	29,00
California	2,200	2,000	2,800	2,80
	_,,		·	
Other 1/		16,300	20,250	18,300
Total	308,200	250,500	205,000	271,000
Improved				
varieties 2/	185,500	161,000	143,500	166,100
Native and				
seedling	122,700	73,200	41,250	86,600

^{-- =} Not available.

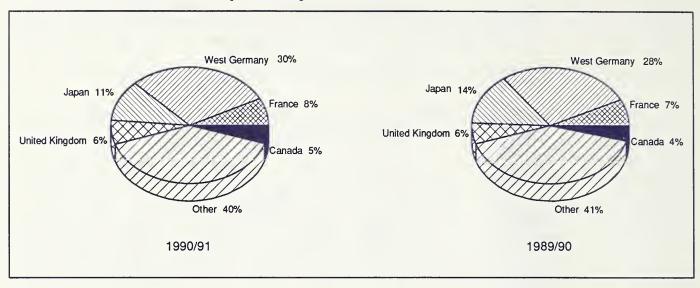
1/ Arizona, Kansas, Missouri, and Tennessee, beginning with the 1989 crop.

No breakdown between varieties available.

^{2/} Budded, grafted, or topworked varieties.

Source: National Agricultural Statistics Service, USDA.

California Almonds: Exports by Destination



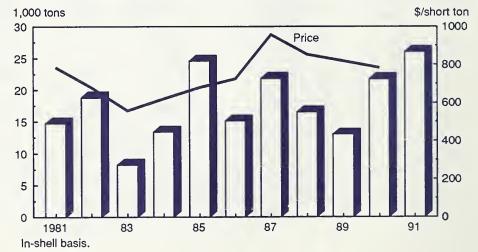
World Hazelnut Supply Down Substantially

World beginning stocks of hazelnuts for the 1991/92 season are substantially lower than a year ago, resulting in a much smaller supply than the two previous seasons.

Total production of hazelnuts (filberts) in the four major producing countries in 1991 is forecast at 530,600 metric tons, in-shell basis, moderately higher than last year, but 22 percent below the 1989/90 record. This is due to lower production in Turkey and Spain, although larger crops are forecast in Italy and the United States.

U.S. production is forecast at a record 25,300 short tons, in-shell basis, 3 percent above the previous record in 1985 and 17 percent above last year. Dry weather in September aided crop development and provided excellent harvesting conditions.

Figure 13
HazeInuts: Production and Season-Average
Grower Prices



Pecan Supplies Larger Than Last Year

The October 1 forecast for the U.S. pecan crop was 271 million pounds, inshell basis, 7 percent lower than the September forecast, but 32 percent above last season's small crop. In many of the major producing areas of the Southeast, the crop has been plagued by disease, insect, and dry weather problems that together have caused early, heavy nut drop as well as heavy shedding of foliage. The lack of significant rainfall has continued to adversely affect pecan yields, nut sizes, and nut quality.

Beginning stocks for the 1991/92 season were very low and grower prices started out near the very high prices of 1990/91. Since the 1991 crop harvest began in September, prices have declined seasonally. Imports from Mexico are expected to fall below last season due to a much larger U.S. crop and a smaller Mexican crop. Total pecan use (domestic and export) likely will match last year, resulting in near-normal ending stocks.

World Walnut Supplies Steady In 1991/92, but U.S. Supply Higher

Walnut production in 1990/91 for the six leading producing countries (the United States, France, Italy, India, China, and Turkey) totaled 483,100 metric tons, in-shell basis. Production in 1991/92, is estimated at 485,800 metric tons, slightly higher than last season. The 1991/92 supply, including carryover stocks, will reach 572,600 tons, the same as the previous season's record.

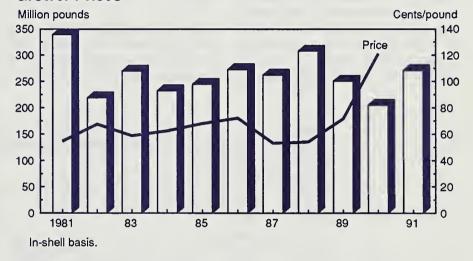
The 1991 walnut crop in California is forecast at a record 250,000 short tons, in-shell basis, up 10 percent from last year. The forecast is equivalent to 226,800 metric tons or about 47 percent of the world total. Last year, California's crop accounted for about 43 percent of world production.

U.S. walnut exports will exceed the record established during the two previous seasons. The United States is expected to provide nearly two-thirds of the world's walnut exports. U.S. domestic consumption will also likely exceed last season's record. Higher demand for walnuts stems from

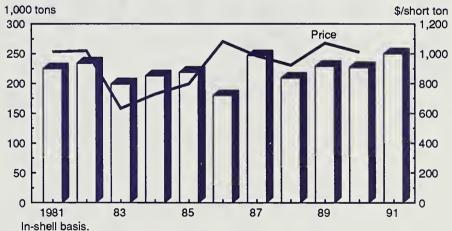
reduced foreign supplies, increasing tree nut use by industrial firms, and much improved walnut quality this year. However, U.S. and world ending stocks for the 1991/92 marketing season are expected to be historically high, which will dampen the grower price outlook for next year.

Figure 14

Pecans: Production and Season-Average
Grower Prices



Walnuts: Production and Season-Average Grower Prices



U.S. Pistachio Crop Fails Sharply, but World Supply Steady

The 1991 California pistachio crop is forecast at 48 million pounds, in-shell basis. This is down 59 percent from last year's record 118 million pounds. The drop results primarily from the alternate-year bearing characteristic of pistachio trees.

Although California's crop is much lower, the 1991/92 supply will be moderated by record-large beginning stocks. Both domestic consumption and exports of pistachios are expected to decline from last season, resulting in modest ending stocks. However, grower prices will rise sharply this

season because supply will not be adequate to meet demand.

Total production for five major pistachio producing countries, excluding Iran, is forecast at 89,900 metric tons, slightly lower than in 1990/91. Adding stocks to production, the total supply is expected to be 129,500 tons, nearly the same as last season, for Greece, Italy, Syria, Turkey, and the United States.

Macadamia Supplies Continue Upward

Supplies of macadamia nuts from the United States and other leading world producers are expected to continue increasing in the 1990's. Consumer

demand from Japanese, American, and other developed country marketplaces is making strong gains. The trend will continue for this luxury nut.

Last year, Hawaiian macadamia production reached 50 million pounds, in-shell basis, slightly lower than the record 1989 crop. The 1991 crop is not officially forecast but the trend projection indicates production could potentially hit 52-54 million pounds. Trade expectations are below this range, however. Production will increase as new acreage planted in 1985 begins bearing commercial quantities in the next few years.



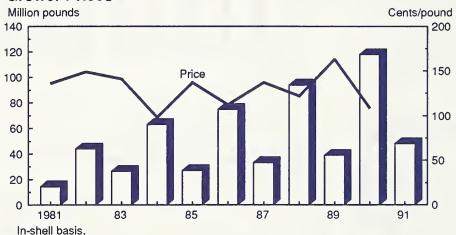


Table 36--Almonds: Production, supply, and distribution, by country, 1989/90-1991/92

Country	Marketing	Beginning			Total		Domestic	Ending	Total
	year 1/	stocks	Production	Imports	supply	Exports	consumption	stocks	distribution
				-Metric tons,	shelled bas	is			
Greece	1989/90	2,783	17,160	1,600	21,543	4,500	14,200	2,843	21,543
	1990/91	2,843	15,500	2,600	20,943	1,800	14,200	4,943	20,943
	1991/92	4,943	11,000	2,800	18,743	2,000	14,200	2,543	18,743
Italy	1989/90	6,000	18,000	9,569	33,569	3,603	23,966	6,000	33,569
	1990/91	6,000	19,000	12,000	37,000	2,000	27,000	8,000	37,000
	1991/92	8,000	11,000	13,000	32,000	1,500	27,500	3,000	32,000
Morocco	1989/90	600	11,110	54	11,764	1,226	9,638	900	11,764
	1990/91	900	11,540	120	12,560	1,200	10,410	950	12,560
	1991/92	950	12,200	100	13,250	1,200	10,950	1,100	13,250
Portugal	1989/90	168	3,500	206	3,874	1,116	2,300	458	3,874
	1990/91	458	2,500	1,050	4,008	900	2,450	658	4,008
	1991/92	658	3,000	200	3,858	1,100	2,550	208	3,858
Spain	1989/90	38,445	80,000	2,700	121,145	32,000	35,000	54,145	121,145
	1990/91	54,145	50,000	4,000	108,145	30,000	35,000	43,145	108,145
	1991/92	43,145	55,000	2,000	100,145	35,000	35,000	30,145	100,145
Turkey	1989/90	2,000	15,000	0	17,000	503	13,497	3,000	17,000
	1990/91	3,000	15,000	0	18,000	500	14,500	3,000	18,000
	1991/92	3,000	16,000	0	19,000	600	15,400	3,000	19,000
United States 2/	1989/90	121,211	222,260	268	343,739	155,302	96,491	91,946	343,739
	1990/91	91,946	299,370	113	391,429	163,525	107,399	120,505	391,429
	1991/92	120,505	208,650	59	329,214	167,831	127,517	33,866	329,214
Totals	1989/90	171,207	367,030	14,397	552,634	198,250	195,092	159,292	552,634
	1990/91	159,292	412,910	19,883	592,085	199,925	210,959	181,201	592,085
	1991/92	181,201	316,850	18,159	516,210	209,231	233,117	73,862	516,210

^{1/} Marketing years are as follows: July-June in United States, Morocco, and Tunisia; September-August in Spain, Italy, and Turkey; October-September in Greece; and January-December in Portugal.

Source: Horticultural Products Review, FAS, USDA.

^{2/} U.S. export, stock, and consumption data are from the Almond Board of California.

Note: U.S. Census Bureau export figures do not match these table data due to variations in actual dates of shipments.

Table 37--Hazelnuts: Production, supply, and distribution, by country, 1989/90-1991/92

Country	Marketing	Beginning			Total		Domestic	Ending	Total
	year 1/	stocks	Production	Imports	supply	Exports	consumption	stocks	distribution
			_	-Metric tons,	in-shelled h	acie			
				motino torio,	in-sirened b	4515			
Italy	1989/90	30,000	140,000	12,128	182,128	94,496	67,632	20,000	182,128
	1990/91	20,000	80,000	27,000	127,000	47,000	,	10,000	127,000
	1991/92	10,000	140,000	10,000	160,000	80,000	72,000	8,000	160,000
Spain	1989/90	4,790	25,000	1,700	31,490	15,800	11,000	4,690	31,490
	1990/91	4,690	18,000	6,000	28,690	5,000	15,000	8,690	28,690
	1991/92	8,690	17,000	1,500	27,190	6,000	15,000	6,190	27,190
Turkey	1989/90	90,000	500,000	0	590,000	209,000	181,000	200,000	590,000
	1990/91	200,000	390,000	0	590,000	320,000	170,000	100,000	590,000
	1991/92	100,000	350,000	0	450,000	200,000	150,000	100,000	450,000
United States 2/	1989/90	1,914	11,800	8,049	21,763	3,792	15,158	1,351	21,763
	1990/91	1,351	19,700	12,687	33,738	5,991	23,606	3,521	33,738
	1991/92	3,521	23,300	5,000	31,821	6,120	23,607	2,094	31,821
Total	1989/90	126,704	676,800	21,877	825,381	323,088	274,790	226.041	825,381
	1990/91	226,041	507,700	45,687	779,428	377,991	278,606	122,211	779,428
	1991/92	122,211	530,300	16,500	669,011	292,120	260,607	116,284	669,011

^{1/} Marketing years are as follows: August-July in United States, September-August in Spain, Italy, and Turkey.

Source: Horticultural Products Review, FAS, USDA.

Table 38--Pistachios: Production, supply, and distribution, by country, 1989/90-1991/92

Country	Marketing	Beginning			Total		Domestic	Ending	Total
	year 1/	stocks	Production	Imports	supply	Exports	consumption	stocks	distribution
				Metric tons	, in-shelled t	oasis			
Greece	1989/90 1990/91 1991/92	870 2,380 1,920	4,940 2,640 2,100	150 500 800	5,960 5,520 4,820	80 100 90	,	2,380 1,920 1,230	5,960 5,520 4,820
Italy	1989/90 1990/91 1991/92	1,400 1,700 300	3,300 300 4,000	6,600 8,000 7,000	11,300 10,000 11,300	2,285 1,600 2,000	8,100	1,700 300 1,000	11,300 10,000 11,300
Syria	1989/90 1990/91 1991/92	460 260 1,260	15,800 20,000 22,000	2,500 1,500 1,000	18,760 21,760 24,260	1,000 1,500 2,000		260 1,260 2,260	18,760 21,760 24,260
Turkey	1989/90 1990/91 1991/92	10,000 16,000 5,000	35,000 14,000 40,000	0 0 0	45,000 30,000 45,000	4,389 500 5,000		16,000 5,000 12,000	45,000 30,000 45,000
United States 2/	1989/90 1990/91 1991/92	14,017 7,578 20,367	17,690 53,520 21,770	3,172 1,422 2,000	34,879 62,520 44,137	5,007 11,975 8,500	22,294 30,178 24,998	7,578 20,367 10,639	34,879 62,520 44,137
Total	1989/90 1990/91 1991/92	26,747 27,918 28,847	76,730 90,460 89,870	12,422 11,422 10,800	115,899 129,800 129,517	12,761 15,675 17,590	75,220 85,278 84,798	27,918 28,847 27,129	115,899 129,800 129,517

^{1/} Marketing years are as follows: September-August in Syria, Italy, and the United States; and October-September in Greece and Turkey 2/ U.S. stock, and consumption data are from the California Pistachio Commission.

Source: Horticultural Products Review, FAS, USDA.

^{2/} U.S. export, stock, and consumption data are from the Hazelnut Marekting Board.

Note: U.S. Census Bureau export figures do not match these table data due to variations in actual dates of shipments.

Table 39--Walnuts: Production, supply, and distribution, by countries, 1989/90-1991/92

Country	Marketing	Beginning			Total		Domestic	Ending	Total
	year 1/	stocks	Production	Imports	supply	Exports	consumption	stocks	distribution
				- Metric tons	in-shelled h	nasis			
				- Metric toris	, iii-siieiieu c	74313			
China (Mainland)	1989/90	0	160,050	0	160,050	39,533	120,517	0	160,050
	1990/91	0	149,560	0	149,560	34,000	115,560	0	149,560
	1991/92	0	152,500	0	152,500	34,500	118,000	0	152,500
France	1989/90	0	25,800	7,400	33,200	11,900	16,300	5,000	33,200
	1990/91	5,000	24,600	7,700	37,300	14,000	23,300	0	37,300
	1991/92	0	11,500	12,000	23,500	2,000	21,500	0	23,500
India	1989/90	980	17,000	0	17,980	8,500	9,000	480	17,980
	1990/91	480	20,000	0	20,480	10,000	9,800	680	20,480
	1991/92	680	17,000	0	17,680	9,000	8,500	180	17,680
Italy	1989/90	1,500	18,000	9,508	29,008	5,327	22,681	1,000	29,008
	1990/91	1,000	18,000	11,500	30,500	1,800	25,700	3,000	30,500
	1991/92	3,000	12,000	13,000	28,000	1,500	26,000	500	28,000
Turkey	1989/90	5,000	64,000	0	69,000	2,879	62,121	4,000	69,000
	1990/91	4,000	65,000	0	69,000	1,500	63,500	4,000	69,000
	1991/92	4,000	66,000	0	70,000	2,000	64,000	4,000	70,000
United States 2/	1989/90	51,183	207,800	161	259,144	82,276	117,116	59,752	259,144
	1990/91	59,752	205,900	108	265,760	82,222	129,550	53,988	265,760
	1991/92	53,988	226,800	90	280,878	88,500	131,142	61,236	280,878
Totals	1989/90	58,663	492,650	17,069	568,382	150,415	347,735	70,232	568,382
	1990/91	70,232	483,060	19,308	572,600	143,522	367,410	61,668	572,600
	1991/92	61,668	485,800	25,090	572,558	137,500	369,142	65,916	572,558

^{1/} Marketing years are as follows: August-July in United States; September-August in Italy and Turkey; October-September in China, France, and India. 2/ U.S. stock, and consumption data are from the Walnut Marketing Board.

Source: Horticultural Products Review, FAS, USDA.

Table 40--Tree nut production (in-shell basis): U.S. share of world, 1990 and 1991 crop years

		United S	States			Other cou	ntries		W	orld
Crop	Qua	antity	Shai	e	Qi	antity	Sha	are	Qu	antity
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
	Million me	tric tons	Per	cent	Million m	etric tons	Per	rcent	Million m	etric tons
Almonds	996.9	694.8	73	66	378.1	360.3	27	34	1,375.0	1,055.1
Hazelnuts	19.7	23.3	4	4	488.0	507.0	96	96	507.7	530.3
Pistachios 1/	53.5	21.8	59	24	36.9	68.1	41	76	90.5	89.9
Walnuts	205.9	226.8	43	47	277.2	259.0	57	53	483.1	485.8
Total	1,276.0	966.7	52	45	1,180.2	1,194.4	48	55	2,456.2	2,161.1

^{1/} Excludes Iran.

Source: Economic Research Service, USDA.

Table 41--Tree nut exports (in-shell basis): U.S. share of world, 1990 and 1991 crop years

		United S	States			Other cou	Intries		W	orld
Crop	Qua	antity	Sha	re	Qua	antity	Sha	re	Qu	antity
	1990	1991	1990	1991	1990	1991	1990	1991	1990	1991
	Million me	etric tons	Per	cent	Million me	etric tons	Per	cent	Million m	etric tons
Almonds	544.5	558.9	82	80	121.2	137.9	18	20	665.8	696.7
Hazelnuts	6.0	6.1	2	2	372.0	286.0	98	98	378.0	262.1
Pistachios 1/	12.0	8.5	76	48	3.7	9.1	24	52	15.7	17.6
Walnuts	82.2	88.5	57	64	61.3	49.0	43	36	143.5	137.5
Total	644.7	662.0	55	58	558.2	482.0	46	42	1,203.0	1,113.9

^{1/} Excludes Iran.

Source: Economic Research Service, USDA.

U.S.- Mexico Fruit Trade

by

Dennis A. Shields and Joani Dong*

Abstract: Fruit trade between the United States and Mexico increased from \$146 million in 1986 to \$334 million in 1990. The United States exported \$48 million of fruit, mostly deciduous fruit, to Mexico and imported \$286 million from Mexico, primarily orange juice, mangoes, strawberries, and grapes.

Keywords: Fruit, exports, imports, Mexico, United States.

Negotiations for the North American Free Trade Agreement (NAFTA) may reduce or eliminate trade restrictions between Canada, Mexico, and the United States. Trade ministers from the three countries met in June 1991 to begin the talks, and later met in October. The Agricultural Negotiating Group has held working meetings throughout the fall to discuss the exchange of tariff offers and requests on nontariff measures. Higher level talks are scheduled to resume early next year.

Trade flows of many agricultural commodities, including fruit, would be affected by such an agreement. The U.S. fruit industry is particularly concerned about trade between the United States and Mexico. For some fruits, Mexico may gain market share in the United States, but for others, the United States may be able to increase exports to Mexico. This paper examines fruit trade between Mexico and the United States during the last 5 years.

U.S.-Mexico Trade Increases

Agricultural trade between Mexico and the United States increased from \$2.3 billion in 1982 to \$5.3 billion in 1990.

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About 10 percent of all U.S. agricultural imports come from Mexico, while about 7 percent of all U.S. exports go to Mexico. Mexico is the fifth largest market for U.S. agricultural exports, and the United States is by far the largest export market for Mexico. The balance of agricultural trade has switched between the two countries, but U.S. exports have led imports in the last 3 years. In 1990, the United States had a \$760-million agricultural trade surplus with Mexico.

Mexico Dominates Fruit Trade, but U.S. Gains Ground

Although trade of fresh and processed fruit between Mexico and the United States has been only about 5 percent of total agricultural trade between the two countries, it increased from \$146 million in 1986 to \$334 million in 1990 (calendar year). In 1990 Mexico's fruit exports of \$286 million to the United States consisted primarily of orange juice, mangoes, strawberries (fresh and frozen), grapes, and limes. U.S. fruit exports to Mexico in 1990 were \$48 million, only 2 percent of total U.S. fruit exports, but were up from only \$5.7 million in 1986. Fresh apples, pears, prunes (fresh and dried), raisins, and peaches make up the bulk of U.S. exports to Mexico.

Mexico's Orange Exports Top the List

Oranges and orange products represent the largest commodity group of

Mexican fruit exports to the United States at over \$90 million in 1990, up from \$21 million in 1986. Frozen concentrated orange juice (FCOJ) imports from Mexico represent less than 15 percent of total U.S imports, but they are the second largest, behind FCOJ imports from Brazil. Like Mexican FCOJ exports to the United States, Mexican fresh orange exports have been quite variable and depend upon supply conditions in both countries. In 1990 the United States received about 28 percent of its fresh orange imports from Mexico, compared with 13 percent in 1989. However, Mexican imports account for less than percent of U.S. domestic consumption. Total U.S. citrus imports from Mexico increased from \$25.2 million in 1986 to \$101.8 million in 1990, the largest value increase of all U.S. fruit imports from Mexico.

Mango imports from Mexico have more than doubled from \$24.7 million in 1988 to \$52.4 in 1990, returning to pre-1986 levels. A change in the phytosanitary requirement that restricted and then eliminated the use of ethylene dibromide (EDB) on U.S. mango imports in 1986-87 significantly reduced U.S. mango imports; however, U.S. mango imports then increased as exporters gained experience using the required treatment, a hot water dip. About 95 percent of the U.S. mango supply is imported, with about 80 percent coming from Mexico and the remainder from the Caribbean Basin Initiative group (primarily Haiti). U.S.

per capita mango consumption has increased from 0.05 pounds in 1970 to 0.42 pounds in 1989.

Strawberries (fresh and processed), at \$31.2 million in 1990, are the third largest U.S. fruit import from Mexico, up from \$23.1 million in 1986. Exports of fresh strawberries from Mexico represent about 9 percent of Mexican production and about 4 percent of U.S. consumption. In 1990, frozen strawberries accounted for 60 percent by value of Mexico's strawberry exports to the United States.

U.S. fresh grape imports from Mexico were \$18.9 million in 1990 but reached \$43.8 in 1988. Limes, \$7.8 million in 1990 compared with only \$3.5 million in 1986, round out the top five Mexican fruit exports to the United States. Mexico is one of the world's largest lime producers, and its lime exports to the world have grown at an annual-average rate of 9 percent. U.S. lime imports, mostly from Mexico, account for almost half of U.S. consumption.

Deciduous and Dried Fruit Lead U.S. Fruit Exports to Mexico

Mexico produces small crops of apples, pears, peaches, and nectarines relative to its population and is a net importer of these fruits. Shortfalls in Mexican domestic production, strengthening demand, and eased trade restrictions have increased Mexican deciduous fruit imports. Fresh pears are the highest valued U.S. fruit exported to Mexico, representing about one-fourth of the 1990 total value, or \$12.6 million. Pear exports to Mexico in 1986 were less than \$1 million. About 25 percent of U.S. fresh-pear utilization is exported, primarily to Canada and Mexico.

U.S. fresh apple exports to Mexico have also grown explosively, increasing from \$0.75 million in 1986 to almost \$7 million in 1990. However, the Mexico market accounts for only about 3 percent of U.S. apple exports, while Canada, Taiwan, and Hong Kong are the largest U.S. markets.

Figure A-1

Value of U.S. Fruit Imports From Mexico, 1990

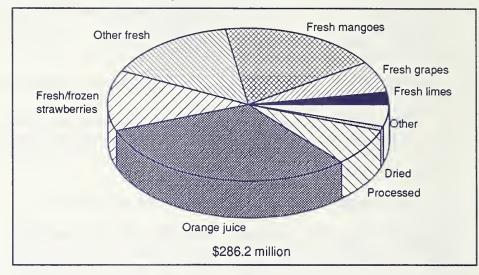


Figure A-2
Value of U.S. Agricultural Imports
from Mexico, 1990

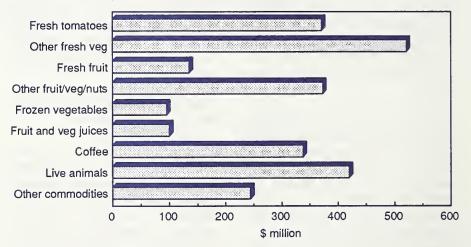
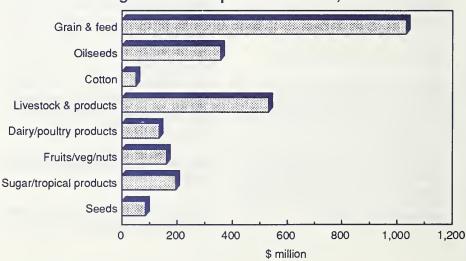


Figure A-3

Value of U.S. Agricultural Exports to Mexico, 1990



Dried prune exports to Mexico almost doubled from \$1.6 million in 1986 to \$3.0 million in 1990. Raisins had more dramatic gains, from \$18,000 to \$3.4 million in the same period. U.S. freshpeach exports to Mexico rose from \$184,594 in 1986 to \$4.2 million in 1990. Many of these peaches are used for processing in Mexico.

Growing Seasons in Both Countries Are Similar

Because the growing seasons in Mexico and the United States are similar, Mexico's mango and citrus exports compete directly with Florida production. The season for other fruits is slightly earlier in Mexico. For example, the Mexican grape harvest begins just before peak U.S. harvesting in July and August, but closely follows California's desert area production. Mexican strawberries enter the United States mainly between September and June, usually peaking in March and April.

Most fresh fruit is seasonally scarce in Mexico City, where about 20 million people consume over 50 percent of the horticultural products marketed in the country. Mexico has little or no controlled-atmosphere storage, so U.S. apples from storage are shipped between March and July. Pear shipments to Mexico usually peak in April. Stone fruit is shipped to Mexico during the summer months when it is available from U.S.-producing areas.

U.S. Fruit Trade Restrictions

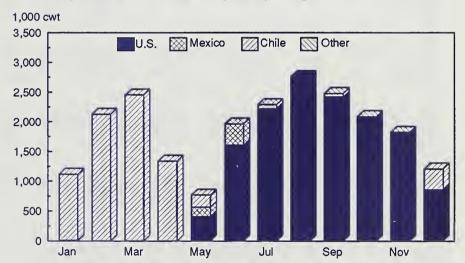
U.S. tariffs on fruit imports vary considerably by commodity. Fresh oranges are subject to a tariff of 2.2 cents per kilogram, or roughly an 8-percent tariff on an ad valorem equivalent basis. FCOJ imports are assessed at 9.25 cents per liter, single-strength-equivalent basis, or about 25 percent ad valorem equivalent. Lime imports have a 2.2-cents per kilogram import tariff, or about 15 percent ad valorem equivalent. Mangoes enter at 8.27 cents per kilogram, or about 10 percent ad valorem equivalent. A list

Figure A-4

U.S. Shipments of Limes by Origin, 1990

1,000 cwt 300 Other 250 California 200 Mexico 150 100 50 Florida 0 Jul Jan Mar May Sep Nov

Figure A-5
U.S. Shipments of Table Grapes by Origin, 1990



of U.S. tariffs on fruit imports are shown in table A-9.

U.S. Federal marketing orders can affect the terms of trade. Under Section 8e of the Agricultural Marketing Agreement Act of 1937, as amended, U.S. imports of certain items are subject to the same size, quality, and maturity standards imposed on domestic production of fruits by Federal marketing orders. marketing orders that affect Mexico's major exports to the United States include Florida limes, California desert grapes, and California raisins. As an example, limes imported from Mexico must comply with the Florida lime marketing order for size, quality, and maturity standards.

Limes, as well as most other fruit, must also meet phytosanitary regulations that minimize the threat of insect or disease infestation of domestic production areas and are designed to protect consumer and producer health and welfare. Mexican Persian lime exports to the United States currently undergo treatment for fruit flies at the packinghouse. The Secretariat of Agriculture and Water Resources (SARH) supervises the treatments, and USDA's Agricultural Plant Health Inspection Service (APHIS) makes periodic inspections to ensure that proper procedures are being followed.

Mexican Key lime imports were banned between 1983 and mid-1991, when

APHIS determined they might be infected with citrus canker.

Mexican Fruit Trade Restrictions

A standard 20-percent tariff applies to almost all fruit imported into Mexico. Mexico significantly reduced tariffs and officially eliminated import licenses for most fruits after acceding to the GATT in 1987. The lifting of import permit requirements helped increase U.S. pear exports to Mexico from 1,882 metric tons in 1986 to 26,798 in 1990. Import permits were required for fresh apples until May 31, 1991, but, due to tight domestic supplies, imports without permits were allowed during restricted periods in 1988, 1989, and 1990.

Table A-1--Value of U.S. fruit imports from Mexico, 1990

Table M. I.— Value of O.C. Heit III polits Holl Mexico, 1990		HOILI INIONICA											
Item and crop	Jan	Feb	Mar	Apr	May	Jun	In	Aug	Sept	Ö	Nov	Dec	Total
						€	\$1,000						
Citrus, tresh: Grapefruit	=	0	0	0	0	0	0	0	0	0	0	0	1
Lemons	က	0	0	7	0	0	0	0	١٥	0	0	0	10
Limes	456	651	918	649	/31 ,	612	601	283	457	989	638	785	7,768
Oranges Mandarines/tangerines	•	246 22 240 240	163	0 0 0	007	000	00	000	00[803	1,734	1,569	908 4,550
Total citids, fresh	φ. -	0	00,	000	2	710	00	283	<u>§</u>	994,	2,8/2	2,398	13,248
Deciduous, fresh: Granes	C	c	c	c	4 323	11 187	2 004	416	α	c	c	c	10 005
Peaches	0	0	0	3 %) }	0	0,53	0	2 4	0	0	0	40
Pears	0	0	0	0	0	8	0	-	0	0	0	0	4
l otal deciduous, fresh		0	0	36	4,323	11,186	2,994	417	12	0	0	0	18,968
Other, fresh:	c	070	4	000	2.4	7	9		000	3	Ó	Ó	6
Mangoes Papavas	90	8/2 51	1,0/2 71	9,898 08	5/c,11 93	356,11 72	12,649	910,7	0.00 0.00 0.00	Z 4	⊃ <u>g</u>	၁ ಜ္ಞ	52,354
Pineapples	36	82	113	32	32	; 4	<u>ه</u>	83	16	ب	8 8	88	554
Strawberries	1,826	1,870	3,685	3,783	626	143	55	4	0	ပ	427	684	13,074
Subtotal Miscellappous/1	1,888	2,879	4,942	9,832	12,326	11,816	12,804	7,143	1,756	97	519	753	66,756
Total other, fresh	3,961	5,171	7,612	12,852	15,121	14,095	15,431	9,974	5,602	4,212	4,496	3,812	102,338
Frozen:													
Strawberries	1,239	3,142	6,547	4,303	3,309	2,074	1,035	336	425	233	330	607	23,639
Total frozen	1,239	3,142	6,549	4,303	3,386	2,096	1,118	412	48.5	267	453	629	24,095
Processed:													
Grapefruit	256	229	207	241	166	139	106	163	169	125	260	142	2,201
Oranges Subtotal	143 200	119 348	164 370	125 366	162 328	107 246	8 <u>8</u>	96 080 080	3 82 22 0	134 259	142 402	110 252	1,468
Other	1,352	1,148	1,940	1,835	2,381	1,785	1,521	1,566	1,232	1,572	1,456	1,388	19,173
Total processed	1,751	1,496	2,310	2,200	2,709	2,031	1,709	1,828	1,482	1,831	1,857	1,640	22,842
Olives	56	84	59	0	0	0	0	188	310	17	0	ω	693
Misc. preparations 2/	37	37	125	107	103	351	228	244	154	41	32	19	1,452
Dried:					:	:			!	į	į		
Haisins	526	123	146	120	0 0	8 4	0 0	8 4	\$ 4 5	651	285	230	2,352
Other Total dried	226	131	147	133	. e4	52 25	ოო	813	477	760	315	30 260	248
Juice:	7,476	14,666	11,637	12,428	9,242	12,461	13,484	4,892	4,170	3,758	3,609	2,091	99,914
Grand total	16,093	25.644	29.490	32.715	35.658	42.857	35.567	18.619	13.146	12.348	13.105	10.907	286.150

1/ Includes bananas. 2/ Includes jams, jellies, pastes, and other preparations.

1990	
Mexico,	
2	
exports to	
fruit	
U.S.	
ŏ	
Value of U.S.	
A-2	
Table A-2V	

					í.		5	65		5		8	2
iterio fe							\$1,000						
Grapefruit	0	0	0	17	80	18	19	0	0	0	0	0	62
Lemons	9 (0 ;	0	0	9	<u>ب</u> ک	0	0	0	88	131	136	373
Oranges	0 80	ξ ξ τ	32	150 25	155	8 7	19	108	9 61	28	7 13	20	700
Mandarines/fangerines	ט ער	2 =	0 0	S E	n C	<u>+</u> α	_	ر ا	9 0	0 0		0 0	25 35
Fotal citrus, fresh	39 0	22	. 4	214	198	134	o 66	140	91	116	161	186	1,489
Deciduous, fresh:													
Apples	482	029	624	655	870	1,197	367	837	327	208	244	371	6,852
Cherries, sweet	0 0	38	9 0	0 7	17	4 ,	~	0 ;	0 9	0 [0 6	12	120
Grapes Peachec/pectarines	103	202	245	4 62	/CI 818	1 2/3	12.9	121	42 42	۵ و	30	884	1,593
Pears	1,063	1.386	1.236	1.343	1.624	974	948	373	853	646	980	1.168	12,595
Prunes/plums	172	250	213	95	90	87	346	241	410	133	20	85	2,113
Subtotal	2,021	2,900	2,443	2,318	3,216	3,646	1,811	2,114	1,968	4,1	1,481	2,377	27,441
Currer Total deciduous, fresh	2,035	2,987	2,456	2,318	3,296	3,942	2,062	3/ 2,151	2,002	1,169	1,481	2,401	28,300
Other, fresh:													
Strawberries	37	12	9	0	0	0	9	77	52	24	0	2	192
Kiwi fruit	18	56	56	14	92	0	7	R	54	88	36	35	358
Pineapples	2	က	က	0	^	က	. 0	0	0	0	0	0	20
Papayas	0	0	0	0	7	0	0	0	0	0	0	0	7
Subtotal	09	71	64	4	ဓ္ဌ	က	13	106	2	22	33	4	9/9
Other Total athor frosh	<u></u>	9 12	0 5	= 8	က ဋ	~ ¢	ω ξ	9 9	0 6	∓ 5	8 8	5 5	100
kal Oli er, il esi i	8		\$	9	44	2	7	711	?	/0	5	ဂ္ဂ	//9
Frozen: Rerries	c	c	1	c	c	c	c	c	c	c	c	c	13
Cherries.sweet	0	0	20	0	ο α	0	0	0	o et	c	5	0	2 2
Subtotal	က	0	10	0	∞	0	0	0	က	0	12	0	36
Other	15	0	9	27	55	09	0	0	0	ო	21	2	158
Total frozen	18	0	17	27	30	09	0	0	က	က	35	2	193
Processed:	•	•	•	•	•	•		,	•	,	,		
Grapeiruit	9 9	0 (0 (0 !	0	0	0	ကျ	0 ;	0	0	0	o ;
reacnes	9/	ე (ი	3 3	ဂ္ဂ	136	8 6	72	ت و	₹ ;	4 0	ဌ ဗ	ກເ	808
Pineanoles	0 60	o c	7 6	۰ ۱	<u>o</u> c	ט ע	77	0 0	_ <	> C	₹ 8	o y	130
Subtotal	168	200	15.	171	15.0	170	t c	ρ 2		2 2	200	3 5	1 250
Other	129	388	32	50	1 6	182	80	100	130	150	5.4	169	1,330
Total processed	296	97	183	200	352	352	162	190	163	224	158	213	2,590
Olives	0	0	0	4	0	0	21	4	0	4	er.	e e	39
Misc. preparations 1/	378	196	112	511	670	161	122	173	108	419	203	325	3 469
Dried.			!				!)	2	:			
Figs	0	0	0	0	0	19	5	2	0	0	2	0	35
Raisins	20	110	51	202	1,384	ω	1,072	192	126	96	89	22	3,438
Prunes	299	355	240	108	116	74	124	160	278	222	320	328	3,054
Subtotal	736	465	291	314	1,500	101	1,201	357	404	318	423	415	6,527
Other	225	32	62	45	72	133	36	64	19	528	487	348	1,625
lotal dried	96/	200	354	328	2/2'1	234	1,238	421	465	1/9	116	/63	8,152
Juice:	20	409	330	566	418	130	485	114	240	169	230	72	2,981
Grand total	3 643	4335	2220	7000	-	1000		1	,,,,	0110			

1/ Includes jams, jellies, pastes, and other preparations. Source: Bureau of the Census, U.S. Dept. of Commerce.

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Table A-3Quantity of U Commodity	1986	1987	1988	1989	1990
Commodity	1000	100.	1000		
			Metric to	ns 1/	
Citrus, fresh:		_		_	
Grapefruit	802	_0	11	3	33
Lemons	174	74	12	0	13
Limes	22,582	30,300	41,517	35,645	49,899
Oranges	10,805	9,222	7,501	980	3,426
Mandarines/tangerines	7,608	12,395	13,308	11,909	12,358
Total citrus, fresh	41,971	51,991	62,349	48,537	65,729
Deciduous, fresh:	•		4.40		•
Apples	0	34	143	0	0
Apricots	0	0	3	0	00.400
Grapes	23,893	31,174	32,988	25,756	26,192
Peaches	505	869	1,374	281	37
Pears	15	0	12	0 00.7	60000
Total deciduous, fresh	24,413	32,077	34,520	26,037	26,235
Other, fresh:	00.005	40.614	07.160	42.000	E0 000
Mangoes 2/	36,685	42,614	27,169	43,922	50,922
Papayas Pinaapplas	818 3,040	676 1,935	1,126	2,071	2,958 3,860
Pineapples Strawberries	4,890	13,508	3,159	3,183	12,601
Subtotal	45,433	58,733	15,933 47,387	13,888 63,064	70,341
Misc. 3/	80,695	89,341	91,044	107,171	166,806
Total other, fresh	126,128	148,074	138,431	170,235	237,147
	120,120	140,074	100,401	170,200	207,147
Frozen: Strawberries	18,220	28,699	24,830	18,289	18,551
Other	0	0	2 7,000	459	489
Total frozen	18,220	28,699	24,832	18,748	19,040
	10,220	20,000	2 1,002	10,110	10,010
Processed: Grapefruit	4,109	3,622	4,368	3,963	2,402
Oranges	2,463	3,205	2,604	2,052	1,470
Pineapples	7,228	9,650	6,280	1,038	590
Subtotal	13,800	16,477	13,252	7,053	4,462
Other	12,386	15,369	16,509	21,356	23,824
Total processed	26,186	31,846	29,761	28,409	28,286
Olives	846	3,196	2,010	1,485	3,070
Misc. preparations 4/	1,177	1,491	1,744	2,524	1,707
Dried:	·	·	ĺ		
Raisins	5,900	5,801	5,517	5,246	3,328
Other	50	297	365	378	246
Total dried	5,950	6,098	5,882	5,624	3,574
Total juice		186,907			
	166,336	· ·	238,096	191,621	286,069
Grand total 5/	244,891	303,472	299,529	301,599	384,788

1/ Juice units in kiloliters. 2/ Includes guavas and mangosteens beginning 1989. 3/ Includes bananas. 4/ Includes jams, jellies, pastes, and other preparations. 5/ Excludes juice.

Table A-4--Value of U.S. fruit imports from Mexico, 1986-90

Commodity	1986	1987	1988	1989	1990
			\$1,000		
Citrus, fresh: Grapefruit Lemon Limes Oranges Mandarines/tangerines Total citrus, fresh	96 60 3,520 1,545 1,619 6,839	0 28 4,356 1,594 2,798 8,775	\$1,000 11 8 5,689 1,405 3,010 10,122	0 0 4,729 250 3,167 8,146	11 10 7,768 908 4,550 13,248
Deciduous, fresh: Apples Apricots Grapes Peach Pears Total deciduous, fresh	0 0 24,252 490 3 24,745	5 0 36,023 1,372 0 37,400	71 8 43,780 1,259 2 45,120	0 0 31,547 219 0 31,766	0 0 18,925 40 4 18,968
Other, fresh: Mangoes 1/ Papayas Pineapple Strawberries Subtotal Misc./2 Total other, fresh	24,968 314 326 4,286 29,895 18,969 48,864	25,952 249 168 13,754 40,123 15,618 55,741	24,746 380 313 14,694 40,133 17,031 57,164	37,042 607 456 13,548 51,653 20,310 71,962	52,354 774 554 13,074 66,756 35,582 102,338
Frozen: Strawberry Other Total Frozen	13,482 0 13,482	21,654 0 21,654	14,034 1 14,035	12,535 238 12,773	23,689 406 24,095
Processed: Grapefruit Orange Pineapple Subtotal Other Total processed	3,242 1,501 2,519 7,262 6,674 13,936	2,246 1,815 5,198 9,259 7,912 17,171	2,701 1,637 4,130 8,469 8,337 16,806	2,974 1,842 689 5,504 13,619 19,123	2,201 1,468 479 4,149 18,694 22,842
Olives	373	1,669	1,302	748	693
Misc. preparations 3/	653	872	847	1,708	1,452
Dried: Raisin Other Total dried	2,441 47 2,487	5,273 355 5,629	4,815 491 5,306	4,871 388 5,258	2,352 248 2,600
Juice: Orange Other juice Total juice	18,358 10,633 28,991	34,269 10,797 45,065	62,421 16,010 78,431	57,494 5,016 62,510	88,577 11,336 99,914
Grand total	140,370	193,975	229,134	213,994	286,150

^{1/} Includes guavas and mangosteens beginning 1989. 2/ Includes bananas. 3/ Includes jams, jellies, pastes, and other preparations. Source: Bureau of the Census, U.S. Dept. of Commerce.

Table A-5--Quantity of U.S. fruit exports to Mexico, 1986-90

Commodity	1986	1987	1988	1989	1990
			Metric ton	s 1/	
Citrus, fresh: Grapefruit Lemons	33 548	114 1,084	128 917	298 1,851	157 1,454
Limes Oranges Mandarines/tangerines	0 465 7	0 418 0	0 2,517 0	24 1,267 32	0 1,249 39 2,899
Subtotal Other Total citrus, fresh	1,053 3 1,056	1,616 0 1,616	3,562 317 3,879	3,472 156 3,628	2,699 295 3,194
Deciduous, fresh: Apples Cherries, sweet Grapes Peaches/nectarines Pears Prunes/plums Subtotal Other	1,541 19 1,121 253 1,882 124 4,940	2,996 33 1,040 2,951 2,401 358 9,779 6	7,596 73 1,331 3,225 3,265 919 16,409 0	9,220 96 1,552 9,667 20,875 2,905 44,315 1,143	12,027 143 2,246 8,045 26,798 3,595 52,854 1,260
Total deciduous, fresh Other, fresh:	4,940	9,785	16,409	45,458	54,114
Avocados Strawberries Kiwi fruit Pineapples Papayas Subtotal Other Total other, fresh	18 3 0 0 20 21 26 47	42 0 0 0 0 42 84 126	2 30 71 0 0 103 389 492	0 298 110 54 17 479 333 812	0 211 362 17 9 599 165 764
Frozen: Berries Strawberries Cherries,sweet Subtotal Other Total frozen	0 17 41 58 23 81	0 27 6 33 71 104	21 0 25 46 84 130	6 195 89 290 51 341	6 0 27 33 146 179
Processed: Grapefruit Oranges Peaches Pears Pineapples Subtotal Other Total processed	22 0 33 43 1 99 470 569	8 0 37 12 30 87 145 232	17 0 110 8 63 198 978	153 0 1,219 229 317 1,918 1,318 3,236	21 0 1,096 358 154 1,629 1,227 2,856
Olives	4	5	22	154	29
Misc. preparations 2/	114	1,248	759	2,564	3,862
Dried: Figs Raisins Prunes Subtotal Other Total dried	0 6 1,245 1,251 234 1,485	0 53 1,729 1,782 179 1,961	0 52 1,644 1,696 482 2,178	90 312 1,590 1,992 615 2,607	79 1,466 2,505 4,050 1,119 5,169
Total juice	624	843	1,527	3,706	7,757
Grand Total 3/	8,296	15,077	25,045	58,800	70,167

^{1/} Juice units in kiloliters. 2/ Includes jams, jellies, pastes, and other preparations.

^{3/} Excludes juice.

Table A-6--Value of U.S. fruit exports to Mexico, 1986-90

Commodity	1986	1987	1988	1989	1990
Citrus, fresh:			\$1,000		
Grapefruit Lemons Limes	10 103 0	18 384 0	56 311 0	131 556 24	62 373 0
Oranges Mandarines/tangerines Subtotal	131 4 247	91 0 493	829 0 1,196	825 10 1,546	700 35 1,171
Other Total citrus, fresh	2 249	0 493	159 1,355	118 1,664	318 1,489
Deciduous, fresh:			.,	.,	
Apples Cherries, sweet Grapes	749 14 727	1,169 31 545	2,892 82 769	4,755 123 1,140	6,852 120 1,593
Peaches/nectarines Pears Prunes/plums	185 960 82	1,359 908 197	1,392 1,267 481	4,791 8,902 1,766	4,167 12,595 2,113
Subtotaİ Other	2,717 0	4,208 4	6,8 83 0	21,477 942	27,441 859
Total deciduous, fresh Other, fresh:	2,717	4,212	6,883	22,420	28,300
Avocados Strawberries Kiwi fruit	31 3 0	21 0 0	4 46 84	0 347 112	0 192 358
Pineapples Papayas	0	0	0 0	54 13	20 7
Subtotal Other Total other	34 16 50	21 55 76	133 238 372	526 238 765	576 100 677
Frozen:					
Berries Strawberries Cherries,sweet	0 20 43	0 9 8	14 0 34	7 105 99	13 0 22
Subtotal Other	63 22	17 43	48 77	211 82	36 158
Total frozen Processed:	84	60	124	293	193
Grapefruit Oranges	8	6	7 0	128 0	9
Peaches Pears	25 35	33 10	78 7	1,027 174	808 310
Pineapples Subtotal	1 69	4 52	54 145	277 1,605	132 1,259
Other Total processed	291 360	199 251	998 1,143	1,265 2,870	1,330 2,590
Olives	5	7	34	204	39
Misc. preparations 1/	110	883	688	2,563	3,469
Dried: Figs Raisins	0 18	0 135	0 170	32 635	35 3,438
Prunes Subtotal Other	1,627 1,646 343	2,246 2,381 383	2,151 2,321 840	2,161 2,827 1,124	3,054 6,527 1,625
Total dried	1,989	2,763	3,161	3,951	8,152
Juices:	125	396	585	1,703	2,981
Grand total 1/ Includes jams, jellies, paste	5,690	9,140	14,344	36,433	47,889

^{1/} Includes jams, jellies, pastes, and other preparations.

Table A-7--Import share of selected U.S. fruit utilization, 1970-90

	1970	1975	1980	1985	1990
			Million pound	ls	
Oranges, fresh: Imports Total supply	58.0 3894.0	27.3 4501.3	22.2 4564.2	27.5 3835.5	26.3 4446.3
Import share (%)	1.5%	0.6%	0.5%	0.7%	0.6%
Tangerines, fresh: Imports Total supply	24.3 348.7	52.6 461.9	42.7 496.7	15.0 259.0	37.2 267.2
Import share (%)	7.0%	11.4%	8.6%	5.8%	13.9%
Limes Imports Total supply	4.8 39.6	7.6 56.0	34.9 93.1	50.5 163.2	87.1 191.1
Import share (%)	12.1%	13.6%	37.5%	30.9%	45.6%
Mangoes Imports Total supply	5.8 9.7	17.8 32.2	43.2 52.1	85.7 94.4	1/
Import share (%)	59.8%	55.3%	82.9%	90.8%	
Strawberries: Imports Total supply	51.1 367.5	34.6 404.6	12.7 494.8	9.6 763.7	32.2 899.4
Import share (%)	13.9%	8.6%	2.6%	1.3%	3.6%

^{1/} Data not available.

Source: Commodity Economics Division, Economic Research Service, USDA.

Table A-8--Import/export market shares for major fresh fruits traded with Mexico

	1986	1987	1988	1989	1990
Mexico's share of U.S. imports			Percent		
Limes, fresh Oranges, fresh Mangoes, fresh Strawberries, fresh	85.3 16.6 85.8 56.9	92.1 14.1 83.9 80.1	92.5 31.1 85.7 80.0	86.0 7.7 87.7 75.7	91.3 25.2 90.0 77.6
Mexico's share of U.S. exports					
Apples, fresh Pears, fresh Peaches/nectarines, fresh Prunes, dried Raisins	0.7 4.6 1.1 2.2 0.0	1.2 5.1 8.0 2.6 0.1	2.1 5.4 5.4 2.3 0.1	3.5 25.9 18.8 2.1 0.4	3.2 20.5 7.7 2.6 2.0

Persent Full	U.S. tariff number	U.S. tariff line product description	Tariff: Specific	Tariff: Ad valorem	1	equiv	lorem alent 1990
Bananas 0.0			Dollars per kilogram		Per	cent	
B0941020		December					
Beat Control Dates with pife, over 4.6 kg 0.0220 1.1 6 8.8			0.1050	0.0			
BOA1060						4.4	4.0
Separation Sep							
Whole figs. c = .5 kg. cont. 0.0°							
0.0044000	08042060			0.0*		• • •	0.0
Bods-6040 Guavas, mangos, mangosteens entered 9/1-5/31 inclusive 0.0827 10.5 8.5 8.6 7.6		Pineapple, not reduced, bulk	0.0064			4.5	5.7
Citrus							
Citrus							
Mandarins, inc. tangerines, clementines, wilkings & other 0.0220 8.6 8.3 6.0	08045060	Guavas, mangos, mangosteens entered other time	0.0827			10.5	8.3
Mandarins, inc. tangerines, clementines, wilkings & other 0.0220 8.3		Organia finali Idria d	0.0000				
08053020							
B083040						0.3	
B0854040 Grapefruit entered id 8/1-9/30 0.0220 0.080						16.6	
0.0180						10.0	
December 08054060	Grapefruit entered in Oct.	0.0180					
Fresh & dried grapes Company C	08054080		0.0290			2.9	8.7
Fresh & dried grapes Company C		Doll	lars per cubic meters				
Section Fresh grapes entered 4/1-6/30 Section Se		grapes	·				
Dollars per kilogram			1.4100	0.0			
Name			2.1200	0.0		0.5	0.7
Name		D	ollars per kilogram				
Other fresh fruit	00000040					0.4	0.4
Apples	08062010	Haisins from seedless grapes, currants, sultanas, other	0.0220			2.4	3.1
Description							
08082040 Pears, quinces enter 7/1-3/31 0.0110 2.2 08092000 Apricots 0.0040 0.0 08092000 Cherries sweet/tart 0.0 0.0 08093020 Peaches, nectarines entered 6/1-1/30 0.0 0.0 08093040 Plums entered 1/1-5/31 0.0 0.0 08094040 Plums entered 6/1-12/31 0.0110 0.0 08101020 Strawberry entered 6/15-9/15 0.0040 0.9 1.4 08111004 Strawberries entered 9/16-6/14 0.0170 1.7 1.6 Frozen fruit 081112020 Frozen strawberries 14.0 0.0* 0.0* 0.0* 0.1.7 1.6 0.0*							
D8091000 Apricots Cherries sweet/tart D8092000 Cherries sweet/tart D8093020 Cherries sweet/tart Christian swe			0.0110	0.0			2.2
0.00 0.00							2.2
Description			0.0040	0.0			
Decided Frozen fruit Dried apricots Dried apricots Dried fruit Dried apricots D			0.0040	0.0			
Name	08093040			0.0			
Strawberry entered 6/15-9/15 0.0040 0.9 1.4				0.0			
08101040 Strawberries entered 9/16-6/14 0.0170 1.7 1.6 Frozen fruit 08111000 Frozen strawberries and 14.0 08112020 Frozen raspb., loganberries, black currants & gooseberries 0.0* </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Prozen fruit 08111000							
National Street National S	08101040	Strawberries entered 9/16-6/14	0.0170			1.7	1.6
08112020 Other frozen raspb., loganberries, black currants & gooseberries 0.0* 14.0 Other frozen berries 14.0 Other frozen berries 14.0 Other frozen berries 14.0 Other frozen papayas 17.5 Other frozen papayas 17.5 Other frozen papayas 0.0055 0.7 0.9 Drled fruit Other frozen pineapples 0.0055 0.0* Other frozen pineapples		France etroubassica		14.0			
08112040 08119040 Frozen berries 08119040 Frozen papayas 14.0 17.5 17.5 17.5 17.5 17.5 17.5 17.5 17.5							
08119040 08119050 Frozen papayas Frozen pineapples 17.5 08119050 Frozen pineapples 0.0055 0.09 0.09 Dried fruit 08131000 Dried apricots 0.0440 0.0* 08132010 Prunes soaked in brine, dried 0.0440 4.4 0.9 08132020 Other dried prunes 0.1750 9.7 7.2 08133000 Dried apples 0.0020 0.0* 08134040 Dried peaches 0.0220 0.0220 Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg 0.0740-drained	00440040			440			
Dried fruit 08131000 Dried apricots 0.0* 08132010 Prunes soaked in brine, dried 0.0440 4.4 0.9 08132020 Other dried prunes 0.1750 9.7 7.2 08133000 Dried apples 0.0220 Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg							
08131000 Dried apricots 0.0* 08132010 Prunes soaked in brine, dried 0.0440 4.4 0.9 08132020 Other dried prunes 0.1750 9.7 7.2 08133000 Dried apples 0.0220 Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg	08119050	Frozen pineapples	0.0055			0.7	0.9
08132010 Prunes soaked in brine, dried 0.0440 4.4 0.9 08132020 Other dried prunes 0.1750 9.7 7.2 08133000 Dried apples 0.0* 0.0* 08134040 Dried peaches 0.0220 0.0540-drained Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg							
08132020 Other dried prunes 0.1750 9.7 7.2 08133000 Dried apples 0.0* 0.0* 0.0* Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg		Dried apricots		0.0*			
Obit 33000 08134040 Dried apples Dried peaches 0.0220 Preserved olives 20057011 20057011 Green, ripe, unpitted olives container < 13kg 0.0740-drained 20057015							
Dried peaches 0.0220 Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg			0.1750	0.04		9.7	7.2
Preserved olives 20057011 Green, ripe, unpitted olives container < 13kg			0.0220	0.0*			
Z0057011 20057015 Green, ripe, unpitted olives container < 13kg Green, ripe, unpitted olives container > = 13 kg 0.0540-drained 0.0740-drained 11.1 Citrus juices 20091100 Frozen orange juice 0.0925 27.9 23.8 20091920 Nonconc. o.j., not made of concen. of 1.5 or more 0.0530 14.5 18.4 20091940 Other orange juice 0.0925 29.9 21.4 20092020 Grapefruit juice nonconcentrate nor made of concentrate of 1.5 or more 0.0530 11.2 12.6	00134040	blied peaclies	0.0220				
20057015 Green, ripe, unpitted olives container > = 13 kg			0.0540-drained	4			
Citrus juices 20091100 Frozen orange juice 0.0925 27.9 23.8 20091920 Nonconc. o.j., not made of concen. of 1.5 or more 0.0530 14.5 18.4 20091940 Other orange juice 0.0925 29.9 21.4 20092020 Grapefruit juice nonconcentrate nor made of concentrate of 1.5 or more 0.0530 11.2 12.6						11.1	
Citrus juices 20091100 Frozen orange juice 0.0925 27.9 23.8 20091920 Nonconc. o.j., not made of concen. of 1.5 or more 0.0530 14.5 18.4 20091940 Other orange juice 0.0925 29.9 21.4 20092020 Grapefruit juice nonconcentrate nor made of concentrate of 1.5 or more 0.0530 11.2 12.6			Dollars per liter				
20091920 Nonconc. o.j., not made of concen. of 1.5 or more 0.0530 14.5 18.4 20091940 Other orange juice 0.0925 29.9 21.4 20092020 Grapefruit juice nonconcentrate nor made of concentrate of 1.5 or more 0.0530 11.2 12.6		Format and the second states			07.0	00	0
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20092020 Grapefruit juice nonconcentrate nor made of concentrate 0.0530 11.2 12.6 of 1.5 or more							
of 1.5 or more							
	20002020		0.0000				
	20092040	Other grapefruit juice	0.0925		38.0	40.	9

*Duty-free status for Mexican imports.
Sources: Harmonized Tariff Schedule of the United States, 1990, and U.S. Department of Commerce, Bureau of the Census.

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